

NIX-STEVENSON, DARA NILAJAH, Ph.D. A Query Into the Social Construction of (Un)natural Disasters: Teaching (About) the Biopolitics of Disposability. (2013)
Directed by Dr. Leila E. Villaverde. 276 pp.

This dissertation represents a theoretical and pragmatic interrogation of global disasters as natural in a comparative and historical context. Specifically the sixty year environmental degradation and contamination of Vieques, Puerto Rico by the U.S. Navy, The Boxer Day Tsunami, Hurricane Katrina, and the Haiti Earthquake are examined to expose fault lines involved in shaping vulnerability and resiliency pre- and post- disaster environments. Research reveals that in post-disaster environments, social institutions operationalize a biopolitics of disposability that is deeply rooted in histories of colonization. Colonial histories, as elaborated upon, reinforce racio-economics or commonsense justifications of racial hierarchy that articulate and define protocols of disaster mitigation, preparation, and response in different global contexts. The framework for exploring the polemics of disasters as discussed here consists of critical discourse analysis through the lens of critical race theory (CRT), critical pedagogy, and womanist theory to problematize questions pertaining to which government agencies or non-governmental organizations (NGOs) are best equipped to mobilize resources during times of disaster or crises. By focusing on the significance of racio-economics in exposing these (un)natural disaster's impact on human lives imbued with complex race and class histories, the case for K-12 environmental science curriculum framework is made to increase society's preparation against future disasters.

A QUERY INTO THE SOCIAL CONSTRUCTION OF
(UN)NATURAL DISASTERS: TEACHING
(ABOUT) THE BIOPOLITICS
OF DISPOSABILITY

by

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A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2013

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Dedicated to all the invisible and voiceless Beloveds.

APPROVAL PAGE

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ACKNOWLEDGEMENTS

My gratitude is extended to my Dissertation Committee. A special heartfelt “thank you” extends to my Dissertation Committee Chair, Dr. Leila E. Villaverde whose unwavering sagacity, knowledge, and insights pushed me to the edge and depths of my intellectual limits. Not only did she urge me to seek the contexts, environments, and conversations in life that invite sacrifice, alienation, and rejection, she implored me to dwell in them. Gratitude is not sufficient enough of an expression to characterize the level of indebtedness I feel for the ONE who has forever changed my life by introducing me to critical pedagogy and in so doing has encouraged me to revel in reading and questioning all contexts, environments, and conversations that I encounter in life.

I am forever grateful to Dr. Silvia Bettez for introducing me to her conceptualization of critical community and modeling its tenets in her daily practice. Not least of all, I appreciate her for introducing me to the brilliance of Dr. Rochelle Brock and her Pedagogy of Wholeness theory along with Dr. Megan Boler’s empathy theory.

Dr. Katherine Jamieson, Dr. Leila E. Villaverde’s intellectual partner who is always in pursuit of academic excellence in the Academy, has pushed me by example to critically examine all things in the world as text. This has made me not only reflect on how I critically read texts in the world, but to also be mindful of how my body inhabits the world and is read.

Dr. Rochelle Brock, Womanist Extraordinaire and architect of the Pedagogy of Wholeness is more than a mentor. The Pedagogy of Wholeness is forever branded in my

psyche and on my soul and serves as a daily reminder that I am and have always been enough.

Without my life partner and soul mate Tomietta Brown (The OTHER ONE) exemplifying steadfast patience, faith, and unconditional love, none of this would be possible.

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CHAPTER I

**DENATURALIZING DISASTER TEACHING COMPARATIVELY ON
VIEQUES, THE BOXER DAY TSUNAMI, KATRINA, HAITI: EXPOSING THE
BIOPOLITICS OF DISPOSABILITY**

Introduction

The principles and ethics with which future ecological disasters or crises are responded to should not be decided by neoliberal market forces. Consequently, this dissertation considers a critical pedagogy of environmental education that denaturalizes disasters to wrestle with the politics of disposability which is increasingly operationalized in local and global places faced with rebuilding after disaster or crisis. Moreover, this critical environmental education approach engages curriculum that centers counter-narratives to the neoliberal narrative of economic policies imposed by institutions of empire on indebted resource poor countries like Haiti.

All too often, this neoliberal narrative masquerades as structural adjustment programs intensely imposed in places like Vieques, South Asia, Haiti such that people in these places face growing income inequalities, increasing production for export rather than domestic consumption, reduced social welfare services, privatization of common property resources like public schools, the dispossession of the poor, and increased ecological disruptions (Bolin, 2007, p. 118). For this reason, race and class is a central discourse for critiquing these neoliberal practices. Hurricane Katrina is instructive to this

research study because it was no aberration, but actually validated “the sturdy symbiosis between black disposability and American nation building” (Rodríguez, 2007, p. 134) since it resulted in the displacement of over 1.3 million people, frequently noted as the largest internal displacement in U.S. history (Kromm & Sturgis, 2008). The significance of this displacement, also acts as a centralizing discourse, and cannot be grasped solely by numbers since the federal government has known for decades that a large hurricane could hit New Orleans, yet monies for investing in flood protection and restoration of wetlands have remained a low-level financial priority (Abramovitz, 2001; Cutter & Emrich, 2006; Dore & Etkin, 2003).

Gelbspan (2007) attributes the Bush administration’s “anti-planning propensity” (p. 21) to its ties with the fossil fuel industry, and notably among them Halliburton. There is a racial history to anti-planning as Jordan Flaherty (2007) notes:

The “disaster before the disaster” that devastated this amazing city was manmade. It was birthed in institutional structures of racism, and it manifested in the crumbling infrastructures of schools and education and health care, and, later in hopelessly mismanaged relief and reconstruction overseen by what some local organizers have referred to as the “the disaster industrial complex.” (p.100)

Naomi Klein (2007, 2005) shares in this analysis and has dubbed the integration of profiteering from privatized and militarized aid and reconstruction “disaster capitalism” which privileges large scale contracting corporations and their financiers like the WB and the *International Monetary Fund* (IMF). Without a doubt, the 2010 Earthquake in Haiti, Hurricane Katrina in 2005, the Indian Ocean tsunami in 2004, and ongoing resource colonization in Vieques, Puerto Rico are referendums for the imperative of systemic

change since they call attention to social inequalities as core conditions that shape both disasters and environmental inequalities on a global scale (Bolin, 2007, p. 113).

Specifically, this dissertation addresses how environmental education can be reoriented to prioritize environmental or eco-justice pedagogy for transformative social change so NGOs may more effectively impact public policy related to disaster mitigation, preparation, and response. This is an area, I argue, that warrants addressing the following questions:

- 1) Are there curricula that effectively address the biopolitics of disposability¹ and what are their promises and limitations?
- 2) What does it mean for NGOs to engage against disaster capitalism?
- 3) Given the prevalence of neoliberalism, what type of transnational or international NGO is best equipped to address disaster preparation, mitigation and response?
- 4) How might mediated representations of disasters advance a critical pedagogy?
- 5) And how does racialized imperialism or colonial racialization shape the way public administrators make decisions in response to natural disasters?

Since “natural” disasters are not natural in their social consequences, these questions aim to grapple with the notion of a disaster as natural by exploring what a disaster is, considering whether the disaster is the proximate cause of alarm, examining the underlying social calculus that renders some citizens better able to survive disaster, and asking is resiliency a citizenship right. For this reason, along with the violent histories of displacement that resulted from them and the legacies of violence they extend, the 2010 Earthquake in Haiti, Hurricane Katrina in 2005, the Indian Ocean tsunami in 2004, and

ongoing resource colonization in Vieques, Puerto Rico were chosen as cases to problematize the idea of “natural” disasters.

These disasters must not only be understood in the context of the devastation they caused and how they continue to play out in Haiti, New Orleans, South Asia, and Vieques, but also as it relates to global articulations of white supremacy and neoliberalism. Consequently, an intervening variable that links these catastrophes is the extent to which racism shaped policy and bureaucratic decision making and magnified the death, destruction, helplessness, and hopelessness felt by many in harm’s way. For example, before Katrina struck, the U.S. government did not take adequate measures to prevent wide-scale displacement of Gulf Coast residents, including coastal protection and maintaining sound storm defense systems such as the New Orleans levees. As a result, the New Orleans levees operate as discourse for revealing the U.S. government’s complicity in not adequately protecting the rights of Gulf Coast residents during displacement, failing in many cases to prevent discrimination against the poor, immigrants and people of color, and allowing children, the elderly, disabled persons and other vulnerable populations to be put in life-threatening situations. Additionally, U.S. officials did not follow U.N. Guiding Principles related to humanitarian assistance, allowing partisan politics to skew relief and recovery assistance, failing to prevent abuses by private contractors and denying displaced persons access to aid from foreign governments (Kromm & Sturgis, 2008). This case exposes a biopolitics of disposability or a revised set of biopolitical commitments shored up by the confluence of race and

poverty or “lay bare what many people in the United States do not want to see: large numbers of poor black and brown people struggling” (Giroux, 2006, p. 177).

Underscoring this revised set of biopolitical commitments is the extent to which dominant media covering these events before, during, and after their occurrence chose to focus on acts of crime, looting, rape, and murder allegedly perpetrated by people of color. This suggests that in the aftermath of Katrina, specifically, media representations intertwined with discourses of white supremacy. According to Moon and Hurst (2007, p. 130), three main themes emerge from the foundation of this white narrative: (1) civilized white/uncivilized black; (2) no bridge across, and (3) white man’s burden. “The first theme encompasses the notion that whites are the most civilized group who has ever lived on Planet Earth and that no matter what white do on their behalf, blacks (and sometimes Mexicans) are “savages” for who civilization’s efforts are a lost cause” (Moon & Hurst, p. 130). This theme was evident in the focus on criminality that was widely drawn from selective mainstream media outlets and coverage that circulated in the first few days after the levee broke. The second theme more specifically focuses on the idea of racial difference and asserts that idea that white and blacks are fundamentally different due to biology, genetics, and culture such that “some saw the aftermath of Katrina as a demonstration of genetic truth” (Moon & Hurst, 2007, p. 132). Drawing from Susan Sontag (2003), these thematic characterizations of black people are devoid of compassion,

Compassion is an unstable emotion. It needs to be translated into action or it withers. The question is what to do with the feelings that have been aroused, the knowledge that has been communicated. (p. 101).

Consequently, these disasters demand us to not look away, but to act by engaging in what Bat-Ami Bar On refers to as a “thought experiment” that permeates with empathy. The ability to engage thought experiments with empathy is a womanist project (Collins, 1991). According to Bar On (2002, p. 234), thought experiments are particularly important in the case of nonordinary or not yet habituated knowledges because they inspire us to engage in the project of critical pedagogy (Kincheloe, 2008; McLaren & Kincheloe, 2007; Darder & Torres, 2003) or to participate in the production of new knowledge rather than the consumption of existing knowledge.

Thought experiments as described by Bar On, produces curriculum to teach (about) what Giroux names the *biopolitics of disposability* and teach (against) the curriculum of global neoliberal economies that have embraced an emergent security state founded on cultural homogeneity. More specifically, the biopolitics of disposability signifies that “the poor, especially people of color, not only have to fend for themselves in the face of life’s tragedies but are also supposed to do it without being seen by the dominant society” (Giroux, 2006, p. 175). The biopolitics of disposability, in theory, is supported by two competing realities, in practice.

First is a reinvestment in a hyper-neoliberalism that is “organized around the best way to remove or make invisible those individuals and groups who are either seen as a drain or stand in the way of market freedoms, free trade, consumerism, and the

neoconservative dream of American empire” (Giroux, 2006, p. 175). The second reality reflects competing theorizations of what kind of disaster is (re)presented by Haiti, Katrina, the Indian Ocean tsunami, and Vieques. In the case of Katrina, it was not an aberration because it actually revalidated “the sturdy symbiosis between black disposability and American nation building” (Rodríguez, 2007, p. 134). According to Giroux (2006), disposability is embodied in individuals who have been:

Excommunicated from the sphere of human concern, they have been rendered invisible, utterly disposable, and heir to that army of socially homeless that allegedly no longer existed in color-blind America (p. 175).

Katrina both enabled criticism of and revalidated white racial dominance whereby the categorical “sanctity of white bodily integrity,” what Rodríguez names “white life,” is constituted through the struggle to secure “ascendancy over the mundane conditions of black suffering” (Rodríguez, 2007, p. 136). Critics of the government response to Katrina have pointed out that its differential impact was not a “natural” disaster but the almost inevitable result of race-based policies that had worked against African Americans over decades. Prior to Katrina, the poverty rate among black people in New Orleans was three times that of whites as cited by Stivers (2007, p. 50).

“Natural disasters, unintended disasters (largely industrial and technological), and deliberate disasters have all increased in number and intensity in the United States [and the world] in the last quarter century” (Perrow, 2007, p. 521). Given this reality, how can interconnectedness be incorporated in disaster preparation, mitigation, and response in order to increase resiliency against and reduce vulnerabilities to disasters be they natural

(meteorites, earthquakes, volcanoes, tsunamis, hurricanes, forest fires, floods, epidemic, and droughts), unintended (explosions, toxic releases, transportation accidents, toxic wastes, genetically engineered crops, or software), or deliberate (cyber-attacks, sabotage, or terrorism)? “We speak loosely of a highly interdependent, networked world, but true interdependency is rather rare. Everything indeed is connected, but most of the connections exhibit far more *dependency* than *interdependency*, more control than cooperation. True interdependency means a reciprocal influence” (Perrow, 2007, p. 528) and exercising the capacity for empathy (Boler, 2004, 1997) that “implies a level of concern grounded in the realization that one’s own well-being is connected to the well-being of others” (Banks-Wallace, 2000, pp. 40-41). In other words, it means internalizing the devaluation of all people through the ideological constructs of thought and action.

This interdependency, of which I speak that is reciprocal in nature and compels empathy, is embodied in the South African principle known as *Ubuntu* (Rights and Humanity Emergency Congress, 2009; World Summit on Sustainable Development, 2002) which translates to “I am because you are” or “We are because you are”. Yet this interconnectedness is not incorporated into the framework for environmental education. Strife (2010) refers to this as a potential site for incorporating a human benefits approach or the “humanization” of environmental education discourse and pedagogical practice.

Global development organizations, like *The Centre for Research on the Epidemiology of Disasters* (CRED) are also implicated here for focusing too much on the discourse of disaster mitigation, preparation, and response and not enough on the

environmental burdens of natural disasters and their effect on various sectors of societies at local, regional, and systemic levels. As a result, current disaster discourse is not concerned with the biopolitics of disposability as a consequence of globalization and is instead obscured by a business-as-usual approach that privileges voices embodying the sanctity of white bodily integrity at the macro or policy level. This emphasis continues to privilege the priorities of corporations, governments, and other entities who determine the policies on a daily basis that lead to massive scale ecological destruction and climate change as opposed to a broader movement at the micro or operational level comprised of resilient local institutions and networks comprised of poor people and people of color.

A present-day example of this is the 2010 Gulf oil crisis caused by British Petrol (BP). As evidenced by the Asian tsunami, Hurricane Katrina, Haiti earthquake, and the occupation of Vieques for its resources, this continues to impact preparation against and recovery from disasters of any type and scale. Certainly with disasters growing in number and severity, and combined with long-term environmental degradation, technological failures, anthropogenic climate change, racial and ethnic conflicts, and growing class inequalities, a transdisciplinary approach to disaster discourse is warranted. Therefore, the business-as-usual approach is not a viable and sustainable option and

Nothing short of a new system of global environmental science is required. It will draw strongly on the existing and expanding disciplinary base of global change science; integrate across disciplines, environment and development issues and the natural and social sciences; collaborate across national boundaries on the basis of shared and secure infrastructure; intensify efforts to enable the full involvement of developing country scientists; and employ the complementary strengths of nations and regions to build an efficient international system of global environmental science (Bologna, 2008, p. 340).

In light of this, environmental education offers a potential site in which to engage in such curriculum work. According to Pamela Bolotin Joseph (2000), all aspects of curriculum should reflect the culture in which it is embedded and:

Curriculum conceptualized as culture educates us to pay attention to belief systems, values, behaviors, language, artistic expression, the environment in which education takes place, power relationships, and most importantly the norms that affect our sense about what is right or appropriate (p. 19).

This philosophy reflects a focus on environmental education to empower individuals and society to participate as opposed to education that emphasizes environmental facts and concepts.

In this way, environmental education is critical education committed to “active pedagogical initiatives aimed at promoting social justice, equality, and democracy” (Fien, 1993, p. 22) through the thoughtful, ethically based, responsible and critical examination of social problems and active participation in developing a continually improving society. Thus, when thinking about environmental education reflecting the culture in which it is embedded, it becomes place-based and focuses on learners’ everyday experiences and invites educators to re-focus philosophical interest on “place” and re-invest in the situated, environmental context of the learner.

Along these same lines, Gruenewald (2003) highlights how place-based education efforts also go beyond the traditional science-based approach to environmental education:

Place-based educators do not dismiss the importance of content and skills, but argue that the study of places can help increase student engagement and understanding through multidisciplinary, experiential, and intergenerational

learning that is not only relevant but potentially contributes to the well-being of community life (p. 7).

Curricula that focuses not only on education for the environment as a place where humans interact with ecological systems, but also as a place contingent upon the “cultural, social, economic, political, historical contexts and perspectives that frame and construct the ecological processes within them” (Cole, 2007, p. 38) is likely to construct a counter-narrative to the notion of natural disasters as “natural” and that which naturally kills those deemed menial in society. It is also likely to reveal linkages between those bodies deemed most disposable in society as those most adversely impacted by hydrometeorological, geological, and biological disasters be they natural, unintended, or deliberate. Ultimately, this dissertation reflects on environmental education’s (EE) role and responsibility to “demystify the notion of ‘natural disaster’ as something that naturally kills the abject” (Rodríguez, 2007, p. 150) with the goal of provoking discussion on how environmental education can tangibly move toward a critical pedagogy that counters the biopolitics of disposability.

Disasters of Historical Record

CRED distinguishes among hydrometeorological, geological, and biological disasters and defines a disaster as a situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering. For a disaster to be entered into CRED’s database at least one of the following criteria must be fulfilled: 10 or more people reported killed, 100 people reported affected,

declaration of a state of emergency, and call for international assistance. The number of people killed includes persons confirmed as dead and persons missing and presumed dead; people affected are those requiring immediate assistance during a period of emergency, i.e. requiring basic survival needs such as food, water, shelter, sanitation and immediate medical assistance (Mohanty et al., 2006, n.p.). The scale of a disaster's impact has much to do with pre-disaster preparedness and mitigation; the in-disaster coping capacities of affected populations (i.e. are there resources in place on which the affected population can depend?); the immediacy, quantity, efficiency and coverage of the disaster response, and the long term commitment of governments and other actors to post-disaster recovery long after the television cameras retreat.

Specifically, between 1991 and 2005, Busby (2009, p. 161) cites evidence, as shown in Table 1 of the people estimated to have been killed by hydrometeorological, geologic, and biological disasters of which almost two thirds of affected inhabit Africa and Asia. For purposes here, hydrometeorological disasters include floods and wave surges, storms, droughts and related disasters (extreme temperatures and forest/scrub fires), as well as landslides and avalanches. Geophysical disasters are divided into earthquakes, tsunamis (cyclones), and volcanic eruptions. Biological disasters constitute epidemics and insect infestations.

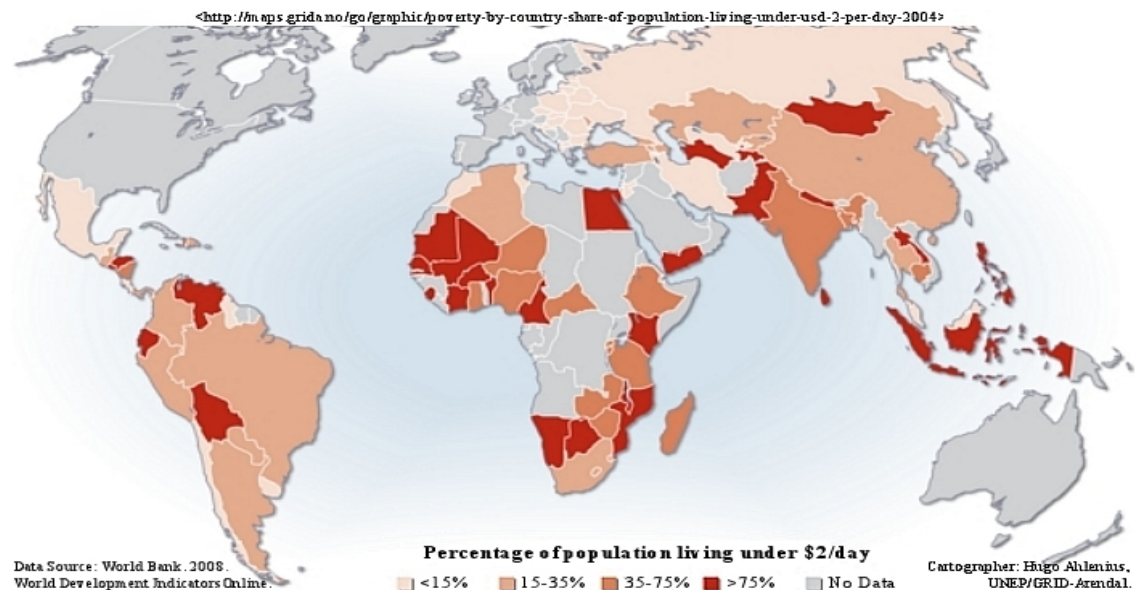
Table 1. Number of People Reported Killed by Type of Disaster and Level of Development, 1990-2008

Disaster	Income					Total
	Non-OECD	OECD	Low Income	Lower Middle Income	Upper Middle Income	
Drought	0	0	1,329	2,939	0	4,268
Earthquake (seismic activity)	3	5,965	134,719	392,622	21,906	555,215
Epidemic	515	464	111,989	26,421	2,204	141,629
Extreme temperature	353	76,430	14,143	1,850	6,108	98,884
Flood	229	2,520	67,173	41,129	35,656	146,707
Mass movement, dry	n.a.	n.a.	136	548	486	1,170
Mass movement, wet	16	655	5,602	7,418	1,582	15,273
Storm	130	7,924	321,376	48,104	2,519	380,053
Volcano	0	76	221	861	26	1,204
Wildfire	0	323	219	398	330	1,270
Total	1,246	94,357	656,907	522,310	70,853	1,345,673

Source: The OFDA/CRED International Disaster Database, Université Catholique de Loovain, Brussels, Belgium
www.emdat.be

These data suggests that Africa and Asia (with the exception of Japan), non-OECD (*Organization for Economic Co-operation and Development*) countries, have borne a disproportionate share of the economic impact of disasters on human lives. Founded in 1948 for the reconstruction of Europe after World War II, the OECD is an international organization of 30 wealthy countries that are committed to the principles of representative democracy and the free market economy. These data correlates with the Figure 1 below which maps poverty level in non-OECD development countries as defined by the *World Bank* (WB) as populations subsisting on less than \$2/day.

Figure 1. Percentage of Population Living Under \$2.00 Per Day



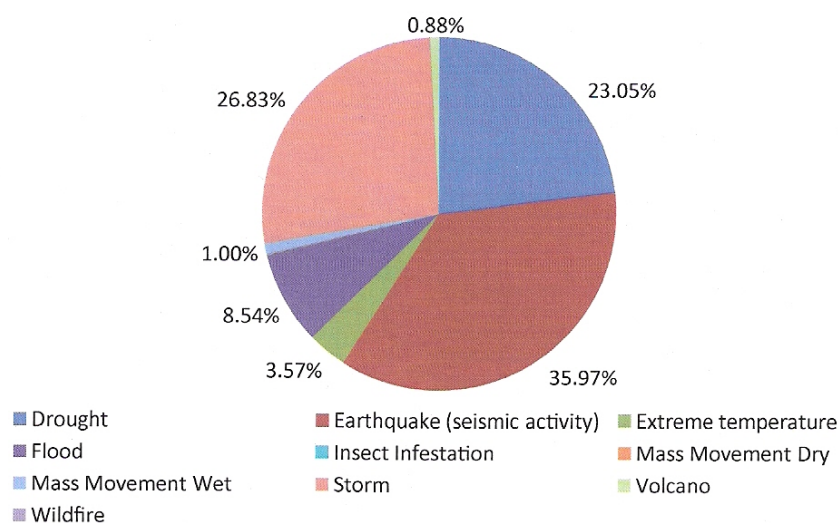
The economic impact of a disaster usually consists of direct (i.e. damage to infrastructure, crops, housing) and indirect (i.e. loss of revenues, unemployment, market destabilization) consequences on the local economy. According to Mohanty *et al.* (2006),

data on disaster occurrence, its effect upon people and its cost to countries, are primary inputs to analyze the temporal and geographical trends in disaster impact. Disasters are tracking points, in time and space, where the most unfavorable combinations of hazard occurrence, physical exposure and vulnerability conditions are revealed. Disaster losses, systematically registered in historical databases, provide the basis for identifying where, and to what extent, the potentially negative outcomes embedded in the concept of risk is realized. They help to understand where, and to whom, disaster risk becomes impact. They also provide the basis for risk assessment processes, a departing point for the application of disaster reduction measures (n.p.).

As can be seen from Figure 2 (CRED, 2010), earthquakes are the largest cause of natural disaster mortality, followed by storms, droughts and floods. Earthquakes are also the least predictable of all natural disasters. If people are poor, then they lack the resources to

move out of harm's way of earthquakes, storms, droughts and floods. This compels consideration of whether or not a link exists between increased disaster mortality and poverty.

Figure 2. Reported Deaths by Natural Disaster Types: 1970-2009



In addition, “earthquake risk is especially high in developing countries like Haiti, the Dominican Republic, Guatemala, and Honduras for several reasons: (1) the population is becoming increasingly urbanized; (2) many people live in poorly constructed housing (especially concrete structures lacking proper reinforcement); low-income, makeshift housing is commonly found on steep slopes that are susceptible to collapse or sliding during major earthquakes. Moreover, countries like Belize, Puerto Rico, and the Virgin Islands are also largely concentrated in low-lying coastal areas and confined harbors, making them more vulnerable to tsunamis related to motions on offshore faults and earthquake-triggered submarine slumps” (Mann, 2005, n.p.). Partly due to this,

earthquakes top the scale of immediate mortality and structural destruction. Table 2 (CRED, 2010) below accounts for the top 10 earthquakes globally by mortality 1970-2009 and serves as a reminder that earthquakes are potentially the most catastrophic and deadly disasters.

Table 2. Top 10 Earthquakes Globally by Mortality, 1970-2009

Date	Country	Richter	Persons Killed	Persons Affected
July 27 th , 1976	China	7.8	242,000	164,000
December 26 th , 2004	Indian Ocean tsunami*	9	226,000	2,432,000
May 12 th , 2008	China	7.9	88,000	45,977,000
October 8 th , 2005	Pakistan, India, Afghanistan**	7.6	75,000	5,285,000
May 31 st , 1970	Peru	7.8	67,000	3,216,000
June 21 st , 1990	Iran	7.3	40,000	710,000
December 26 th , 2003	Iran	6.6	27,000	268,000
December 7 th , 1988	Armenia	6.9	25,000	1,642,000
September 16 th , 1978	Iran	7.7	25,000	40,000
February 4 th , 1976	Guatemala	7.5	23,000	4,993,000

Source: EM-DAT International Disaster Database

*Affected countries: Bangladesh (2 killed, 0 affected), India (16,400 killed, 654,000 affected), Indonesia (165,700 killed, 532,900 affected), Kenya (1 killed, 0 affected), Malaysia (80 killed, 5,100 affected), Maldives (102 killed, 27,200 affected), Myanmar (71 killed, 15,700 affected), Seychelles (10 killed, 0 affected), Thailand (8,300 killed, 67,000 affected).

**Pakistan (73,300 killed, 5,128,000 affected), India (1,309 killed, 156,600), Afghanistan (1 killed).

Though, it is irrefutable that earthquakes, volcanic eruptions, floods, and avalanches are among the geologic forces that have shaped the world around us. Avalanches, or landslides or wet mass movement as they are sometimes referred, are usually secondary disasters caused by such primary occurrences as earthquakes, volcanic eruptions, monsoon rains, or heavy snowfall. Typically, an avalanche is caused by accumulated snow on a mountainside that is loosened by tremors, echoes, or uneven melting of the snow base. Whatever the cause, an avalanche is sudden, unanticipated, and violent.

Mountains, lakes, seaside waterfronts, and entire population areas are equally vulnerable to avalanches. Helped by accumulated force, speed, and gravity, avalanches generally grow in size and destructive power as they accumulate loose debris, rocks, soil, trees, water and anything in its path. The most catastrophic and deadly avalanches occur in regions of heavy snow and ice (Davis, 2008).

Notwithstanding and worthy of mention, catastrophic events, like the asteroid impact 65 million years ago off the coast of what is now Yucatan, or volcanic eruptions, such as those that covered 2 million km² of Siberia with basalt up to 2 km deep 250 million years ago, are thought to have triggered mass extinctions that mark transitions between major historic eras. The asteroid impact 65 million years ago that ended the age of dinosaurs is calculated to have created a tsunami hundreds of meters high that could have swept around the world several times before subsiding. This impact also ejected so much dust into the air that sunlight was blocked for years and a global winter decimated much life on the earth. A similar impact 250 million years ago off the coast of Australia is thought to be related to the end of the Permian era, when 90 to 95 percent of all marine species perished. It is plausible that this asteroid impact caused fissures in the earth's crust that allowed a vast outpouring of lava in Siberia. Together, these cataclysmic events likely filled the atmosphere with ash and sulfuric acid aerosols that plunged the earth into a massive deep freeze (Cunningham & Cunningham, 2010). Fortunately, such massive events are rare or are they?

As the devastating 2004 Indian Ocean tsunami underscores, geophysical hazards represent a huge threat. Table 3 (Cavallo *et al.*, 2010) shows the estimated loss of life in

specific noteworthy geophysical and hydro-meteorological disasters that have occurred since 1970.

Table 3. Deadliest Disasters Since 1970

Rank	Country	Year	Description	People Killed	People Killed Per Million Inhabitants	Damages (US millions, 2009)
1	Haiti	2010	Earthquake	200,000-250,000	15,000-25,000	7,200-8100
2	Nicaragua	1972	Earthquake	10,000	4,046	4,325
3	Guatemala	1976	Earthquake	23,000	3,707	3,725
4	Myanmar	2008	Cyclone Nargis	138,366	2,836	4,113
5	Honduras	1974	Cyclone Fifi	8,000	2,733	2,263
6	Honduras	1998	Cyclone Mitch	14,600	2,506	5,020
7	Sri Lanka	2004	Tsunami*	35,405	1,839	1,494
8	Venezuela	1999	Flood	30,005	1,282	4,072
9	Bangladesh	1991	Cyclone Gorki	139,252	1,232	3,038
10	Solomon Islands	1975	Tsunami	200	1,076	n.a.
11	Indonesia	2004	Tsunami*	165,825	772	5,197

*Indian Ocean Tsunami caused a total of 226,000 deaths over 12 countries

Moreover, when viewed in relation to the size of Haiti's population and its economy, the January 12, 2010 Haitian earthquake was an incredibly destructive geophysical disaster. In this respect, the Haitian earthquake was vastly more destructive than the Asian tsunami of 2004 and the cyclone that hit Myanmar in 2008. It caused five times more deaths per million inhabitants than the second-ranking killer, the 1972 earthquake in Nicaragua. *Inter-American Development Bank* (IDB) economists Andrew Powell, Eduardo Cavullo, and Oscar Becerra (2010) conclude that the scale of the damages in Haiti will require unprecedented coordination among multiple bilateral, multilateral and private donors. Further, they note that Haiti's economy is likely to be stunted by this particular earthquake for many years. A separate forthcoming study by Cavallo and others

indicates that countries struck by disasters on this scale suffer an economic setback that can take decades to reverse. As Haiti's infrastructure presently reveals, Haiti has yet to recover from other natural disasters faced in the twentieth century. Table 4 (CRED, 2010) highlights the salient natural disasters in Haiti's history.

Table 4. Top Ten Natural Disasters in Haiti by Mortality, 1970-2008

Date	Disaster Type	Persons Killed	Persons Affected
September 2004	Storm (Tropical cyclone Jeanne)	2,754	315,594
May-June 2004	Flood	2,665	31,283
November 1994	Storm (Tropical cyclone Gordon)	1,122	1,587,000
September 2008	Storm (Tropical cyclone Hanna)	529	48,000
August 1980	Storm (Tropical cyclone Allen)	220	Not reported
September 1998	Storm (Tropical cyclone Georges)	190	12,029
October-November 2007	Storm (Tropical cyclone Noel)	90	108,763
August 2008	Storm (Tropical cyclone Gustav)	85	73,006
June 1986	Flood	79	98,860
May 1972	Flood	78	40,000

Source: EM-DAT International Disaster Database

The compilation of historic earthquake formation reveals that rapidly growing cities such as Kingston, Jamaica (present population 3,066,700), Port-au-Prince, Haiti (population 3,066,700) and Santo Domingo, Dominican Republic (Population 1,891,700) have experienced repeating damaging earthquakes in past centuries, some of which were devastating (e.g. Kingston, Jamaica, in 1692 and 1907). All of these large cities are likely to experience future shocks under much more crowded conditions in the 21st century (Mann, 2005, n.p.).

This evidence explains, in part, the devastation of the January 12, 2010 earthquake that tore through Haiti. In terms of rebuilding Haiti's homes, schools, roads, and other infrastructure, the cost of rebuilding is expected to be many times lower than that of Hurricane Katrina in 2005, a result of the far higher costs of property in the United States.

Haiti's future recovery from the earthquake is compounded by the fact that it is the most destructive event a country has ever experienced when measured in terms of the number of people killed as a share of the country's population (see Table 3) and the decimation of the capital city, Port-au-Prince, the center of commerce, government and communication. According to Dr. Erdik, a professor at Bogazici University (as cited in Revkin, 2010, n.p.), without vastly expanded efforts to change construction and educate people on simple ways to bolster structures, Haiti's tragedy forecasts major earthquakes that are likely to devastate Karachi, Pakistan, Katmandu, Nepal, Lima, Peru, or one of a long list of large, impoverished cities. Even more, "Haiti, the poorest country in the Western Hemisphere [though the first country to defeat a slave-holding state, in this case France, in modern history and incorporate as a nation], lacks a reasonable building code to help structures resist shaking and has almost no enforcement of what code it has" (Kerr, 2010, p. 398).

Undoubtedly, as sudden movements in the earth's crust occurring along faults (planes of weakness) where one rock mass slides past another one, earthquakes attack at the weakest point. Not only does the 2010 earthquake in Haiti attest to this, but so too does the 2010 earthquakes which have struck Chile, Turkey, and China on the Tibetan border. Whether movement along faults occurs gradually and relatively smoothly, a creep or seismic slip as it is called, it may be undetectable to the casual observer. The 2004 (Sumatran) Asian tsunami reflected an extreme creep or seismic slip on the Indian Ocean floor. Further, cataclysmic earthquakes also occur when friction prevents rocks from slipping easily and causes stress to build up until it is finally released with a sudden

jerk at an earthquake's epicenter or the point on a fault at which the first movement occurs, are easily triggered. These epicenters are found along the earth's seven major plates and 12 minor ones each about 60 miles thick. Imbedded in these plates and poking up irregularly above them are the continents, which are roughly 40 miles thick. Scientists theorize that the transfer of energy within the Earth causes the plates to drift. In the course of this process, both continents and plates collide, and some slip over and under each other. Others drift apart. Along these boundaries, earthquakes and volcanic activity occur. When earthquakes take place in urban areas such as Port-au-Prince, Haiti, the devastation is generally acute and cataclysmic. Other cities such as Tokyo, Japan, or Mexico City, parts of which are built on soft landfill or poorly consolidated soil, usually also suffer the greatest damage from earthquakes. Water-saturated soil can liquefy when shaken from earthquakes. Buildings sometimes sink out of sight or fall down like a row of dominoes under these conditions. The worst death toll usually occurs in cities with poorly constructed buildings (Davis, 2008, p. 33). Earthquakes are almost always followed by a series of aftershocks that can continue long after the initial shock.

Even though earthquakes are among the most common geophysical events, it is noteworthy that floods have been most lethal. Because of its geology and large population, China has suffered a majority of these disasters with the United States Gulf Coast being the exception which was rendered uninhabitable in certain locations when Hurricane Katrina struck in August 2005. "The historic record of earthquakes and tsunamis in the northeastern Caribbean is the longest in the western hemisphere and dates back to the arrival of Europeans in the New World in 1492" (Mann, 2005, n.p.). The

only other earthquake/tsunami that approached the 2004 ordeal in scope and magnitude was the explosion of Krakatoa, at the opposite end of Sumatra from the epicenter of the 2004 earthquake.

Several factors contribute to flood potential. One is the hydrologic cycle, a biogeochemical cycle in which water passes from the oceans into the atmosphere onto land, through and under the land, and back to the ocean. For 3 billion years, the total amount of water on the earth's surface has remained constant because of this cycle. This water balance and its cycle is achieved by a combination of the sun's heat and pull of gravity, both of which constantly recycle moisture, which evaporates and enters the air as vapor, then condenses and falls back to earth as snow. Farming and construction methods employed in alluvial soils, soils deposited by moving water, often contribute to flooding. Vegetation captures precipitation, often before it hits the ground, and returns it to the atmosphere. Denuding the landscape by grazing, tilling, building, or the felling of trees removes that process. Certain soil characteristics also contribute to flood potential. If the ground is coarse and composed of sand or gravel, rain water is absorbed quickly. But if the ground is fine, composed of clay, less water gets through and runoff is inevitable. Undoubtedly, the most resistant surface is caused by human construction; the present concretizing of the landscape allows for no absorption and heightens the threat of flood through runoff in urban areas. This anthropogenic flood potential has forced human-kind to invent methods of diverting and/or constraining waters burdened by precipitation, tidal waves, tsunamis, or melting snow which include dikes, diversions, and dams. But all have proven ineffective against a major flood catastrophe. In fact, flash

floods and bursting dams are the most dangerous of all flood disasters because of their unpredictability.

Flash flooding contributed to the monumental loss of life in New Orleans from Hurricane Katrina in August 2005. The only city in the United States ever to be completely devastated by an ecological disaster, it is also the only U.S. city that is 70 percent below sea level, surrounded by water on three sides and protected by levees lower than 25 feet. In addition, wetlands that had formed natural barriers to flood had been drained, excavated, and built upon, though inadequately by the Army Corps of Engineers, long before the arrival of Katrina. The flood came not from the Mississippi River, but from the backwash of Lake Pontchartrain, which breached levees in multiple locations and sent waters flooding into the streets of the city, literally drowning most of New Orleans.

The death and devastation resulting from Katrina was certainly compounded by a multitude of factors. Some 1,277 lives were lost in August 2005, all but a few by drowning. The total number of homeless was 374,000 and over a million people were evacuated from a city that had been built upon the egregious mindset and belief that it was possible and even safe to live below sea level in a place surrounded on three sides by water. There is simply no defense against unleashed water (Davis, 2008). But more than this, Hurricane Katrina resulted in the displacement of over 1.3 million people, frequently noted as the largest internal displacement in U.S. history; the significance of this displacement cannot be grasped solely by numbers. As a global case of grand failure, the Katrina crisis revealed a number of failures that can inform future crises and emergency

management theory and practice. Evidence shows there was prior knowledge that, as a result of land erosion, New Orleans was unprepared for – and the levees would not stand – a large Category 4 or 5 hurricane, and yet nothing was done about it; the U.S. Army Corps of Engineers' estimate of \$2.5 billion to upgrade the levees against a Category 5 hurricane was ignored, and lesser amounts were spent on special interest projects (Longshore, 2008). The poor preparation to mitigate the disaster or its severe impacts was a major cause of the catastrophic result, and this was evidenced during 2004-2005 simulations. Despite several days of warnings, local and state government leaders failed to evacuate the local population, most of whom were brown-skinned, poor and stranded and several of whom were elderly. When the local and state government did evacuate just before landfall, it was either too late or the poor mobilization activities hampered the task, with most transportation facilities useless under the water.

Nearly five years after the devastating impact of Hurricane Katrina, decisions made and actions taken on federal, state and local levels have severely impacted Gulf Coast residents' rights to adequate housing, health and equal access to the criminal justice system. Rights violations in these three areas not only are mutually reinforcing, but also combine to have a disproportionate impact and severely affect low income communities and communities of color while creating the circumstances which prevent their return.

The Asian tsunami of 2004, like Hurricane Katrina, also reveals multiple histories and violences of displacement. Tsunamis can be generated by earthquakes or by landslides or underwater volcanic eruptions. The ring of seismic activity and active volcanoes, known as the “ring of fire”, around the edge of the Pacific Ocean makes it the

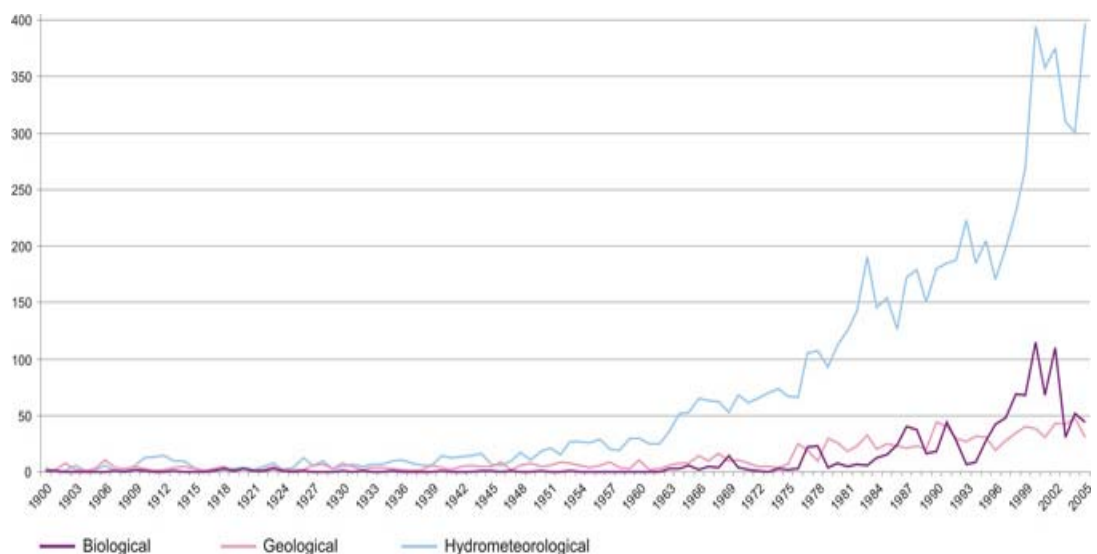
most likely place in the world for tsunami formation. The United States already has six tsunami warning buoys in the Pacific Ocean. In January 2005, President Bush announced a \$37.5 million plan to deploy 32 new Deep-ocean Assessment and Reporting of Tsunami (DART) buoys by mid-2007 in the Pacific, Atlantic, and Caribbean to protect U.S. coastal areas. Each buoy has an anchored seafloor bottom pressure recorder and a companion moored surface buoy for real-time communication. An acoustic link transmits data from the pressure recorder on the seafloor to the surface buoy. The data are then relayed by a satellite link to ground stations. The Indian Ocean had no such warning system in 2004. In the wake of the disaster, however, 53 nations met in Brussels and pledged to create a worldwide system, including the Indian Ocean, by 2015 (Cunningham & Cunningham 2010).

Like tsunamis, volcanoes and undersea magma vents that produce much of the earth's crust are also preludes to earthquakes. Over hundreds of millions of years, gaseous emissions from these sources formed the earth's earliest oceans and atmosphere. The theory of plate tectonics established some of the causes of the eruption of volcanoes. According to one theory, volcanoes appear where two plates are pulling apart, thus releasing a surge of magma from beneath the plates. The second cause for the formation of volcanoes, according to another theory, comes where plates collide, or slide over or under each other (Davis, 2008, p. 385). Many of the world's fertile soils are weathered volcanic materials. Volcanoes have also been an ever-present threat to human populations as evidenced by the recent 2010 Eyjafjallajökull volcano erupting in Iceland. Volcanic eruptions often expel three varieties of material in large volumes: liquid (lava),

fragmental (pyroclastics, such as ash, mud, and rocks), and gaseous, usually sulfur dioxide, into the air that block sunlight. Further, sulfur emissions from volcanic eruptions combine with rain and atmospheric moisture to produce sulfuric acid (H_2SO_4). The resulting discharge of H_2SO_4 can interfere with solar radiation and significantly warm the world climate. The third type of volcanic formation occurs in the middle of a plate. According to Earth Scientist Dr. Robert Decker (as cited by Davis, 2008, p. 236), “Somehow, a hot spot in the Earth’s mantle melts a hole through the middle of a plate, allowing molten material to spill out on the surface. The Hawaiian Islands are a perfect example of this process – they are right in the middle of the huge Pacific plate”.

It should also be noted that although the number of people killed by natural disasters declined 1900-2005, more people are having their lives disrupted by natural disasters. Higher numbers of people affected by disasters may be a consequence of the rising number of reported hydrometeorological disasters as shown in Figure 3.

Figure 3. Number of Natural Disasters, 1900-2005

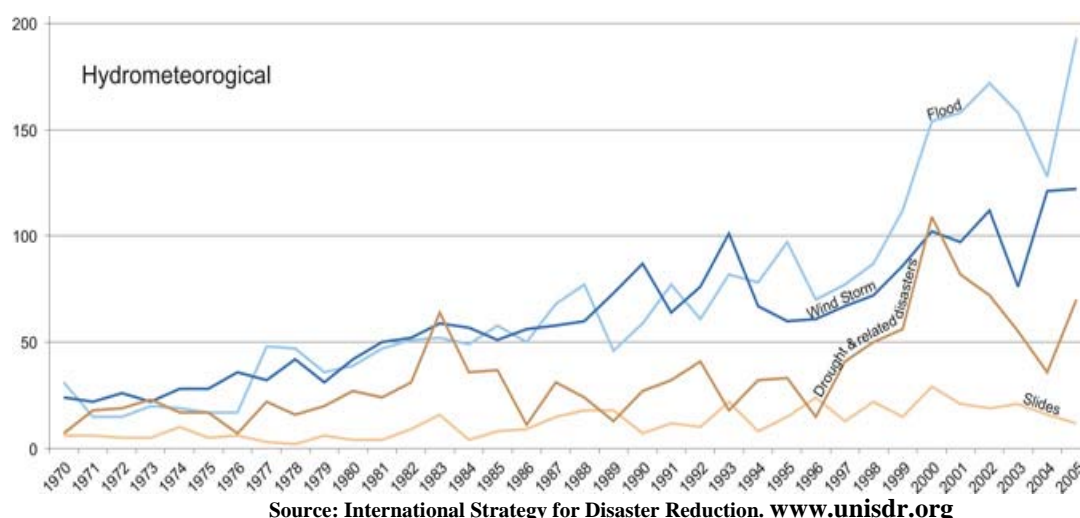


Source: EM-DAT: the OFDA/CRED International Disaster Database. www.em-dat.net, UCL - Brussels, Belgium

In fact, recent research and climate models inform hydrometeorological data as reflected in Figure 4, suggests increasing intensity and devastation caused by hydrometeorological disasters as a likely consequence of climate change. According to a recent publication in *Nature*, one possible factor is hurricanes. Climate modeler Morris Bender of the National Oceanic and Atmospheric Administration's Geophysical Fluid Dynamics Laboratory in Princeton, New Jersey, and his colleagues used a technique referred to as "double-downscaling." Starting with the average of atmospheric and oceanic conditions forecast for the end of the century by 18 global climate models, the group transferred the averaged conditions into a North Atlantic regional model detailed enough to generate a realistic number of hurricanes, the second of the downscaling, that decline in the number of storms limited to moderate strength storms. Category 4 and 5 storms, with maximum winds of 216 kilometers per hour and above, about doubled in frequency by the end of the century; the strongest storms, with winds of 234 kilometers per hour and above more than tripled. The results generally matched those of earlier studies that took different approaches to coping with limited resolution; they were consistent with longstanding theory that as ocean temperatures rise, the additional water vapor driven into the atmosphere can both intensify existing storms and inhibit the formation of new storms (Kerr, 2010, p. 399). Bender *et al.* (2010) calculates that although the overall number of hurricanes would decline in a warmer world, they would still cause more damage, according to the modeling. Category 3 to 5 hurricanes have accounted for 86% of all U.S. damage despite constituting only 24% of U.S. landfalls. The researchers attribute this finding to the fact that when storms move up from one category to the next, the

potential damage roughly doubles. Thus, in the models, the increase in the rare, most intense storms dominates, leading to a net increase in the potential damage of roughly 30%. Translated to the real world, the researchers note that the number of Atlantic hurricanes observed during the past 25 years has doubled.

Figure 4. Number of Hydro-meteorological Disasters, 1991-2005



Scientists have long suspected that global warming could make hurricanes more intense somehow (Plumer, 2010). However, a new study of Fedorov *et al.* (2010) suggests the effect works both ways: tropical cyclones could help drive up temperatures in response to more intense hurricanes. Fedorov, lead investigator of the study suggests that hurricanes could have created a permanent El Niño condition. In the modern world, El Niño is a change in wind patterns and ocean currents that occurs every few years, bringing warmer water to the normally cool eastern Pacific. The result is major changes in storms and other weather effects, along with a temporary spike in global temperature. If the El Niño that occurred in 1998, for example, were taken as a starting point for tracking global

temperatures, the finding would reveal that the following decade didn't see a lot of warming by comparison. This is the origin of the myth that global warming has stopped or never occurred in the first place. What might have happened back in the Pliocene, say Fedorov and his colleagues, is that an initial stretch of global warming led to severer hurricanes, a distinct possibility supported by recent research published in *Science* (Bender et al., 2010) and *Nature Geoscience* (Knutson et al., 2010), and more severe hurricanes led to more warming (Fedorov *et al.*, 2010; Sriver, 2010, Chen *et al.*, 2004). Based on these recent scientific findings owing to credible climate modeling, it is not inconceivable that the devastation unleashed on the Gulf Coast five years ago was a consequence of warming global temperatures even if ever so slight. Add to this that some like Jordan (2007, p. 132) state that the extraordinary severity of the 2005 Atlantic hurricane season is linked to global climate change which America contributes to disproportionately.

Though science has not substantiated a link between anthropogenic- or climatic-induced global warming and the exacerbation of Atlantic Ocean hurricanes like the Katrina crisis, leadership failure at all levels of government – especially at the federal level – has been lacking around identifying any “real” links between anthropogenic global climate change and more frequent and intense hurricanes. Despite requests of President Bush, from Louisiana governor Kathleen Babineaux Blanco to declare a state of emergency under the provision of the National Response Plan, a plan which gives the president the authority to bypass state and local governments in catastrophic situations, that power was not used during Katrina (Smith Crocco, 2007). The federal government

leadership waited five days after landfall to take coordinated action by putting the federal military and Coast Guard on assignment, far too late and a glaring failure of crisis leadership.

Federal Emergency Management Agency (FEMA) and its director, Michael Brown, failed miserably at coordinating a multi-institutional network of organizations and volunteers during the response process. Appointed on a patronage basis, the FEMA director had not experience or specialized expertise in crisis or emergency management. This was reflected in the fact that volunteer forces from across the country were ordered by Brown to take a two-day pre-response training in Atlanta instead of taking them into the field, where their assistance was desperately needed. There was also a lack of central command structure to provide leadership and to coordinate state and local efforts, with hundreds of network organizations and volunteers unable to work together in a flexible and collaborative way. The Superdome and convention center became death traps for tens of thousands of people, with the local homeland security officials and Brown either claiming not to know about it, despite published communications to the contrary, or failing to provide victims there with help. And there was the total communications failure among the police and other governing agencies – a total system collapse resulting in complete chaos and costly misunderstandings, a crisis situation that no one was trained or prepared to cope with (Foster, 2007). Nonetheless, Katrina as historical text offers many teachable moments.

Methodology and Theoretical Framing

No single methodological and theoretical lens can frame an intersectional analysis of disasters. This is the case when considering the complexities of disasters like the 2010 Earthquake in Haiti, Hurricane Katrina in 2005, the Indian Ocean tsunami in 2004, and ongoing resource colonization in Vieques, Puerto Rico, though most incorporate an analysis of social vulnerability as it is theorized in western discourse (Bankoff, 2001). Western discourse on social vulnerability and disasters does not assume that disasters are fundamentally human constructs that reflect global distribution of power and human uses of our natural and built environment, though it should. Given that disaster risk is socially distributed in ways that reflect the social divisions that already exist in society and social vulnerability to disaster is a social dynamic rooted at the interstices of gender, class, race, culture, nationality and other power relationships, the naturalness of disasters is contestable. Further noted are the situational and contextual dimensions that integrate with these intersections, such as physical (dis)abilities and health concerns, household size and composition, functional literacy, citizenship status, and political experience (Phillips & Hearn Morrow, 2008).

Again, Katrina serves as a viable point of reference since “the regional catastrophe that emerged in the aftermath of 2005’s Hurricane Katrina provides critical researchers with a mandate to attend to the complex historical and political ecological factors that have shaped race and class relations and produced the landscapes of risk so clearly and tragically revealed in the disaster” (Bolin, 2007, p. 128). In examining disasters of the scale and magnitude of the 2010 Earthquake in Haiti, Hurricane Katrina

in 2005, the Indian Ocean tsunami in 2004, and ongoing resource colonization in Vieques, Puerto Rico with the goal of provoking discussion on environmental education's role in focusing more on an environmental justice (Bowers, 2002; Bullard, 2006; Bullard & Johnson, 2000; Taylor, 2000) orientation inclusive of disaster education, I prioritized a two-pronged research objective that involved:

- 1) considering impacts of the natural and built environment on one's social and political location in the environment (Bowers, 2002) with the goal of imagining a student-centered, action-oriented and problem-posing curriculum for environmental education (Stevenson, 2008) and
- 2) interrogating the biopolitics of disposability while seeking answers to specific questions raised:
 - i. Are there curricula that effectively address the biopolitics of disposability² and what are their promises and limitations?
 - ii. What does it mean for NGOs to engage against disaster capitalism?
 - iii. Given the prevalence of neoliberalism, what type of transnational or international NGO is best equipped to address disaster preparation, mitigation and response?
 - iv. How might mediated representations of disasters advance a critical pedagogy?
 - v. And how does racialized imperialism or colonial racialization shape the way public administrators make decisions in response to natural disasters?

This study offered answers to these questions by using bricolage or a multi-methodological form of analysis (Kincheloe, 2008, p. 64). Specifically, I used critical discourse analysis (CDA) and semiotic analysis of selected images along with a hybrid theoretical approach that draws from among womanist theory, critical race theory and critical pedagogy that is grounded in syncretic dialogue (Gutiérrez, 2008). This requires “an account of intricate relationships between text, talk, social cognition, power, society, and culture” (van Dijk, 1993, 253). It also involves an analysis of texts, interactions, and social practices at the local, institutional, and societal levels that contributes to sociopolitical literacy. For this project, syncretic dialogue is used to situate lived experiences of disaster victims like Milvertha Hicks (Figure 5) and others in new historicized understandings. “Central to this theoretical endeavor is the analysis of the complex relationships between dominance and discourse” (van Dijk, 1993, p. 252). Specifically, as stated by van Dijk (1993), critical discourse analysis concretizes the role of discourse in the (re)production and challenge of dominance such that:

Dominance is defined here as the exercise of social power by elites, institutions or groups, that results in social inequality, including political, cultural, class, ethnic, racial, and gender inequality. This reproduction process may involve such different ‘modes’ of discourse-power relations as the more or less direct or overt support, enactment, representation, legitimation, denial, mitigation or concealment of dominance, among others. More specifically, critical discourse analysts want to know what structures, strategies or other properties of the text, talk verbal interaction or communicative events play a role in these modes of reproduction. (p. 250)

As an analytical tool, it describes the relationships among certain texts, interactions, and social practices; it interprets the configuration of discourse practices; and it utilizes the

descriptions and interpretations of discourse practices to offer an explanation of why and how social practices are constituted, changed, and transformed in the ways that they are (Rogers *et al.*, 2005, p. 371).

Critical discourse analysis was chosen to support my research aims because it accommodates raising questions around the intervening discourses considered necessary to make the case against the naturalness of disasters which are race, class, colonialism, media, landscape, the levees, housing, and displacement. Most importantly, it has supported my positionality as a critical researcher who used disasters or crises to engage in a thought experiment about relations between discourse, power, dominance, and social inequality in this dissertation. Subsequently, I position myself as a queer, black, educultural womanist (Bullen, 2008)³ using the epistemological and ontological framing of womanism (Brock, 2005, p. 23; Rogers, 2005, 381). This permitted me prioritize empathy and an ethic of caring as I engaged in my own thought experiment while writing about the knowledge of multiple histories of violences associated with those who have been displaced by the disasters under consideration here. From an ontological perspective, showing empathy is grounded in womanist theorizing because it offers an epistemological framework for asking the “how” and “why” questions necessary to dispel the notion of disasters as natural and biopolitical commitments and being genetically determined. Such positionality in analyzing the discourse of these disasters also necessitates the overlapping use of semiotic analysis to uncover meaning from selected images.

As a methodology grounded in meaning-making of photographs, semiotic analysis, has the potential to demythologize stereotypical myths associated with catastrophic disasters. Lester (2007, p. 115) suggests three key concepts that aid in the understanding of photographs: (1) the need to see a picture as a “witness to layers of meaning.” (2) the relative importance of the words that are used to explain a picture. (3) the “gaze” of “psychological and sociological realms of photographer, subject, and viewer”. From such theoretical ideas and methodological approaches for image meaning construction, significance is found in the minute details. Lester (2007) delineates it best in stating:

The goal of any type of visual analysis should be to assign meaning – whether personal, professional, or cultural. Visual historiography, semiotic analysis, or the trendy yet equally awkward terms “forensic visual analysis,” “photobiography,” and “stenography” are some of the ways visual researchers uncover meanings from images. (p. 115).

Jenkins (2007) further suggests that “images operate according to a documentary mode of seeing that places the viewer in a position of judgment and encourages [viewers] to fall back on familiar and stereotypical evaluations. Photojournalism inculcates a specific documentary mode of seeing “since the demand for objectivity necessitates erasure of subjectivity, whether of the photographer or the spectator” (Jenkins, 2007, p. 94). The documentary mode of seeing is evident throughout news media coverage of tsunami images, Katrina images, and Haiti images. Therefore, I have attempted to include selected images associated with them since images play an influential role in naturalizing myths, irrespective of their discursive framing, as shown by their modes of seeing, points

of view or perspective. Abel (as cited in Jenkins, 2007) theorizes that the point of view from which an event is seen influences the meanings ascribed to the event (p. 93). In my research, visual historiography was used to counter the mythologizing power of images. News photographs are especially relevant because they reveal more than what is present at first glance. “People and events that appear in photographs accompanying news stories are not simply indicative of isolated individuals and occurrences; rather, the photographs are symbolic of “the whole mosaic.” That is, they become emblematic representations of the social world. These pictures provide drama and detail, and they illustrate the implicit, and the “taken for granted” (Kahle et al., 2007, p. 78). One such iconic image that speaks to this and has come to portray the complexities of Hurricane Katrina, and disasters of this scale and magnitude, is pictured in Figure 5 (Gay, 2005). This photo was taken by Eric Gay of Thursday, September 1, 2005 of 84 year-old Milvertha Hendricks as she waited in the rain with other flood victims outside the Louisiana Superdome in New Orleans like a “refugee”. To some, this image may epitomize patriotism since Hicks is draped in a blanket patterned with the American flag, but for me it concretizes what CNN anchor Wolf Blitzer commented on when speaking about the victims of the hurricane by stating, “They are so poor, and they are so black” (Blitzer et al. 2005). According to the tenets of womanism, Black feminist epistemology, “concrete experience as a criterion of meaning” defines two types of knowing – wisdom and knowledge (Collins, 1991, p. 208). This suggests to me that race matters due to the way Katrina media coverage impacted what Americans thought, saw, and felt. When I examine the image of Milvertha Hicks with a womanist lens, the photographer’s motivation, as summed up by

Blitz's comments, for photographing the picture was to impose an outside identity "shaped by dominant society so as to make racism, sexism, and poverty appear as a natural, inevitable part of life as well as help to maintain interlocking systems of race, class, and gender oppression" (Brock, 2005, p. 11). Such hidden agendas operate as a tool of oppression to validate exclusionary and contestable images. To understand this further, it is useful to draw a comparison between the public response to Hurricane Katrina and to another national disaster. Take, as an illustration, the attack on September 11th. In the aftermath of the attack, the National Opinion Research Center conducted a National Tragedy Study in which they found there was no racial disparity in post-disaster emotional response. This result did not hold true in the aftermath of Katrina. In fact, there was a vast racial gap in the public opinion regarding the relationship between disaster response and race. Survey respondents also had a visceral response to rapper Kanye West's comment that "George Bush doesn't care about black people." Fifty-six percent of white respondents determined his remark to be unjustified, while 91% of black respondents asserted that there was at least some justification for his comments. Additionally, while only 24% of white respondents believed that government response would have been faster if victims were white, a full 84% of African American respondents believed that to be the case (Harris-Lacewell, 2007). These perceptions point to a discourse on race with deeper implications beyond just disaster relief.

Figure 5 Milvertha Hendricks, 84



Source: ©AP Photo/Eric Gay/Date: 09.08.2005/Full size: 289x400

Certainly, a highly publicized image such as this and others are particularly helpful in addressing the question, how does racialized imperialism shape the way public administrators make decisions in response to natural disasters? I have raised this question in an attempt to highlight conditions of legitimacy or acceptability, including abuses of power and the negative effects of the exercises of power, namely social inequality, as it relates to top-down relations of dominance. My goal was not to advance conspiratorial notions or blaming racist politicians for social and environmental problems in order to advance understanding of such complex events, but rather to investigate how interlocking systems of power, politics, and economics operate as a discourse to render

certain people, like Milvertha Hicks African American, female, elder, and poor, more unsafe in the prelude to and aftermath of natural disasters.

Susan Sontag (1977) claims, “Something we hear about, but doubt, seems proven when we’re shown a photograph of it” (p. 5). Long after the memories of Hurricane Katrina fade, will readers likely retain this and other images in their memories as part of their mental representations of African Americans and “mixed race” peoples which have been partly shaped by the particularities of natural disaster coverage that offered up a portrayal of African Americans as simple, lazy, undeserving and non-self-reliant people? Thus the tenets of critical race theory (CRT) “recognizes that racism is endemic in U.S. society, deeply ingrained legally, culturally, and even psychologically” (Tate, 1997, p. 234). This makes it a useful theoretical framework for exposing the commitments inherent in biopolitics since biopolitics colludes with narratives of whiteness to maintain marginalizing impressions of black people. “It must be noted that there is more at stake here than the resurgence of old-style racism; there is recognition that some groups have the power to protect themselves from such stereotypes and others do not, and for those who do not – especially poor blacks – racist myths have a way of producing precise, if not deadly, material consequences” (Giroux, 2006, pp.176-177). Derrick Bell (1979, 1980a, 1980b, 1987, 1992) refers to this as interest convergence in line with the tenets of critical race theory. “The interest convergence principle is built on political history as legal precedent and emphasizes the significant progress for African Americans is achieved only when the goals of Blacks are consistent with the needs of Whites” (Tate, 1997, p. 214). The defining elements of CRT, as a theoretical perspective, offered

wisdom about existing disaster policy, research, and practice in historical contexts that have shaped the race and class discourses that have produced the landscapes of risk associated with the disasters discussed.

In asking the question, what does it mean for non-state actors to engage against disaster capitalism?, I have intended to edify social actors who model counter-discursive strategies for dealing with the failure of top-down relations of dominance in society and who offer a broader theory of power and counter-power that has a proactive impact on public policy decision making regarding disaster mitigation, preparation, and response. Non-governmental organizations (NGOs), businesses, private philanthropy, and the grassroots all have hugely important roles in facilitating disaster risk reduction and resilient responses at all levels, from the local community to the nation-state to regions and beyond. Particularly NGOs like *The Inter-American Development Bank* and grassroots organizations like, *Un Techo para mi País* (A Roof for My Country), *Katrina Information Network*, *People's Institute for Survival and Beyond*, and *Independent Media Center* are a notable few among the most important service providers of disaster relief, education and restorative hope. The important work and role of these organizations is underscored in former CBS Evening News Anchor Katie Couric question posed to Eduardo Almeida, head of IDB, about Haiti's road to recovery when she asked, "Do you ever feel just, do you ever get demoralized and feel hopeless about this huge endeavor?" Almeida replied, "We don't have time to feel like depressed and disappointed. We have to understand that each one of us, and each one of our institutions, are here to put a stone in the wall that's going to be built" (Couric, 2010). Almeida's response points to the

necessity of social actors at the micro or operational level in society since “channeling all the resources through traditional aid mechanisms would likely end in tears, either in a disappointingly slow or low-level scaling up of activities and a fair amount of aid diversion, either by tied aid to Western companies or by corrupt government” (Busby, 2009, p. 169).

Given the trend toward dismantling the welfare state, non-traditional aid mechanisms seem to be increasingly necessary, as well as socially fulfilling, alternative in the aftermath of disasters. Besides, traditional aid mechanisms are prone to paralysis and prioritization of corporate interests over those of the people, disaster mitigation, preparation and response must incorporate the perspectives of non-state actors (activists, grassroots, local community groups, and the like) in their efforts to more effectively educate and communicate about disaster risks. As an illustration,

Patrick Meier has written about the capacity for local viral self-organizing efforts by communities to protect themselves from and respond to disasters. He writes on nonviolent guerrilla communication strategies, taking advantage of the latest mobile telephone and satellite technology, even in places like Myanmar. Though formal systems of disaster preparedness are important, donors may profit from more diffuse efforts to support community organizations, disaster consciousness, and communication technologies that will lead to unexpected capacities by vulnerable communities to get the word out and protect themselves (Busby, 2009, pp. 173-174).

This reality is underscored by the fact that in the immediate aftermath of many disasters, the first responders are not state agencies or large charities, but rather they are remaining local residents and activists. Lipsky, as cited in Stivers (2007, p. 50), “observes that

frontline workers are significant because their decisions have a direct impact on the lives of their clients and because they make policy.” If we remember Katrina,

the entire world of global institutions, peoples, and governments watched with unbelievable shock how the world’s most advanced nation was caught by complete surprise, unprepared and unable to cope with the Katrina crisis. This was an ugly picture the world took notice of; it was not just bad governance but ugly governance. Sadly, this ugly picture also translated, in the eyes of the global community of friends and foes alike who followed its development with sympathy and disbelief, into more implications for democratic governance, human rights, and the role of race, color, and minority status in American society (Farazmand, 2007, pp. 153-154).

As supported by van Dijk (1993) and Rogers et al. (2005), critical discourse analysis along with visual historiography has guided my responses to the remaining questions raised: what curriculum work is interrogating the biopolitics of disposability in its myriad local and global contexts, what type of global (developmental) organization is best equipped to address disaster mitigation, preparation, and response, and how might the media play a role in framing disasters that humanize the subject rather than invalidates them.

The use of critical discourse analysis and semiotic analysis was grounded in a syncretic dialogical approach that operates in the third space (Gutiérrez, 2008). Scholars like Gloria Anzaldúa (2002, p. 544) refer to this third space as *Nepantla* or alternatively as liminal space that operates as a zone of possibility. In this space, I have engaged in thought experiments (autoethnographic exploration) on a range of issues related to my research objectives. Laurel Richardson (2000, p. 11) calls these narratives with the self “interior monologues”. The syncretism is reflected in the fact that I chose to think about

these issues with four intellectuals - Chela Sandoval, Gloria Anzaldúa, Arundhati Roy, and Audre Lorde – who offer overlapping philosophical frames on the issues I raised and to intertwine scripts of those dialogues with the five research questions posed in an attempt to actualize what Anzaldúa (2004) refers to as *conocimiento* (p. 541) – alternate ways of knowing that synthesize reflection with action to challenge the status quo or to offer one blueprint for “furthering social action – a central dimension of the knowledge work in critical pedagogy” (Kincheloe, 2008, p. 64). From Gutiérrez’s perspective,

Third space is where teacher and student scripts – the formal and informal, the official and unofficial spaces of the learning environment – intersect, creating the potential for authentic interaction and a shift in the social organization of learning and what counts as knowledge (2008, p. 152).

This space is aimed at constructing a Freirean problem-posing pedagogical space in which “people teach each other” (Freire, 1970/2000, p. 80) by engaging in dialogue.

Explicitly, I utilized Chela Sandoval’s theoretical perspective to reflect about curriculum work that is in place to address the biopolitics of disposability. Sandoval’s scholarship was chosen to theorize these issues because of her intellectual investments in developing the theory of a differential oppositional consciousness. In Sandoval’s article “U.S. Third World Feminism: The Theory and Method of Differential Oppositional Consciousness,” Sandoval describes four historical modes of oppositional consciousness: equal rights, revolutionary, supremacist, and separatist, but she also describes a fifth mode that she names differential oppositional consciousness. Differential oppositional

consciousness, as defined by Sandoval, is a method of moving through each of the previous four modes and adopting and adapting them as necessary.

In this process, the ideological boundaries between each of the individual modes become less rigid, and the modes shift from functioning as oppositional strategies with fixed goals to functioning as oppositional tactics responding fluidly to a variety of circumstances. For Sandoval, differential oppositional consciousness is a representation of the praxis of U.S. third world feminism and proposes a location where this praxis “links with the aims of white feminism, studies of race, ethnicity, and marginality, and with postmodern theories of culture as they crosscut and join in new relationships (Sandoval, 2004). Applied to the biopolitics of disposability, Sandoval’s elaboration of the “methodology of the oppressed” theorizes strategies of resistance that intervene in the postmodern patterns of objectification and oppression, advocating use of any tools at one’s disposition to sustain survival and assert resistance. Appropriation of dominant ideological forms and their application in political struggle allows for subversion of oppressive protocols of subjugation and exploitation, like the biopolitics of disposability, while ensuring social transformation. The significance of this political proposition lies in the possibility of transformation of existing material conditions into sources of liberating strategies. Sandoval emphasizes that it is necessary “to comprehend, respond to and act upon” economic, political, and cultural forces affecting consciousness and identity (Sandoval, 1995, p. 408), understanding that these forces create “particular subject positions within which the subordinated can legitimately function” (Sandoval, 1998, p. 57). As she recognizes cultural hybridity as an effect of postmodern conditions of

cultural transnationalization, she theorizes it as a “differential postmodern form of oppositional consciousness” and a strategy of survival that has emerged out of postmodernity (Sandoval, 2000, p. 57.8). Sandoval identifies hybridity’s potential for an oppositional political stance as it undermines master narratives of sociopolitical forces – the biopolitics of disposability, racism, colonialism, globalization etc. - with its principles of mobility, partiality, and non-essentialism that is related to Gloria Anzaldúa’s concept of “*mestiza consciousness*”.

The philosophical framework in *mestiza consciousness* that is theoretical, political, and personal generates agency and consciousness by countering objectification and oppression without reproducing the hegemony that positionality strives to overthrow. This is why in my thinking with Gloria Anzaldúa relevant questions are raised relative to the role of non-state actors in engaging the biopolitics of disposability. In her book, *Borderlands: La Frontera = The New Mestiza*, Anzaldúa discusses the complexities related to one’s identity from a gendered standpoint. She describes the difficulty of finding one’s self within the context of being a woman who is Mexican and Indian, and argues through her writing that it is illogical that one should have to choose an allegiance to one part of one’s self as sanctioned by an oppressing, dominant culture. The person who believes that she faces such a decision can feel pressed into the position of denying or muting some aspect of herself. Anzaldúa chooses not to claim any one part of her identity to represent her entire identity. Examples of this solution in action are evident in Anzaldúa’s own self-description:

I am a border woman. I grew up between two cultures, the Mexican (with a heavy Indian influence) and the Anglo (as a member of a colonized people in our own territory). Living on borders and in margins, keeping intact one's shifting and multiple identity and integrity, is like trying to swim in a new element, an alien element. And yes, the "alien" element has become familiar – never comfortable, not with society's clamor to uphold the old, to rejoin the flock, to go with the herd. No, not comfortable but home (Preface).

Thus, Anzaldúa's ability to write from a position on, around, and between external, communal, and individual borderlands made inclusion of the theory of *mestiza* consciousness necessary in order to suggest political mobilization strategies capable of countering the biopolitics of disposability.

Arundhati Roy's ideas were used to reflect on the type of global (development) strategies best equipped to address disaster mitigation, preparation, and response. Specifically, here theorizing was used to critique the notion of "empire". Roy is most suited for this exploration because of initiatives she has undertaken to document human rights abuses and demand accountability from governments who perpetrate these abuses and refuse to act against the guilty. Evidence of this is reflected in Roy's ongoing affiliation with the Jury of Conscience as spokesperson and her attendance at the June 2005 Istanbul session of the World Tribunal on Iraq. This coalition of voices, with Roy at the helm, raised the questions,

So, what do citizens of the world do when the most powerful nations violate the laws that their governments have agreed upon and the other governments lack the nerve to denounce and try the war makers? How many times has the United States invaded or sent its CIA to alter the destiny of other people (Guatemala 1954, Bay of Pigs, Cuba, 1961, Brazil, 1964, Dominican Republic 1965, Chile 1970-1973, Haiti on innumerable occasions, Venezuela 2002)? (Landau, 2006, p. 7).

No doubt, Roy's voice offers a salient critique of the resource colonization in Vieques and a read of the Asian tsunami, Hurricane Katrina, and the Haiti earthquake as state crimes of victimization. The latter three disasters reveal a constellation of similar claims about social injury caused by multiple state failures that provide the basis for conceptualizing government negligence.

In the eyes of Roy (2001), government negligence and abuse of power is at the root of why "empire" needs to be confronted. Roy defines empire as "this loyal confederation, this obscene accumulation of power, this greatly increased distance between those who make the decisions and those who have to suffer them" (Roy, 2003, n.p.). In her writings, Roy frequently asks, "When humanity does not have powerful governments to represent it, what does it do? (Landau, 2006, p. 7) and her response is encapsulated in the following statement:

Our strategy should not only be to confront empire, but to lay siege to it. To deprive it of oxygen. To shame it. To mock it. With our art, our music, our literature, our stubbornness, our joy, our brilliance, our sheer relentlessness – our ability to tell our own stories. Stories that are different from the ones we're being brainwashed to believe (Roy, 2003, n.p.).

Also present in Roy's analysis are critiques of structural adjustment policies (SAPs) orchestrated and the extent to which they arbitrate what she refers to as "the sophistry and fastidious algebra of Infinite Justice" (Roy, 2001, p. 28). This was germane to my analysis. When poor countries, like Haiti and those in South Asia, receive loans from global (development) organizations, they come with strings attached in the form of SAPs. These financial strings serve to only hurt poor people through massive public sector

layoffs, spending cuts in basic social services, crippling wage freezes and labor suppression, devaluation of local currencies, promotion of export-oriented production, and abolition of price controls on basic foodstuffs (Bigelow & Peterson, 2002, p. 82).

Finally, since several popular narratives assign responsibility to a host of political officials on the local, state, and federal levels for the excess human suffering stemming from the Asian tsunami, Hurricane Katrina, the quake that shook Haiti's earth, Audre Lorde's theoretical perspectives were used to critique the role of the media in framing natural disasters. Drawing from "Poetry is Not a Luxury", Lorde's (1984) perspective is included to explore a central research question - how does racism shape the way public administrators make decisions in response to natural disasters? Again racism is operationalized as discourse. To counter operationalized racism as discourse, public administrators must provide culturally relevant leadership in response to disasters and that the media is responsible for providing a space for dissonant civic critique from which subaltern voices (Spivak, 1995) can be seen as legitimate social actors and the plight of ordinary citizens can be heard (Foster, 2007). Appropriating the framework of culturally responsive teaching (Gay, 2002; Villegas & Lucas, 2002), culturally relevant leadership is conceptualized as leadership that compels leaders to critically examine their praxis and incorporate into it six salient characteristics: (1) sociocultural consciousness, (2) an affirming attitude toward people from culturally diverse backgrounds, (3) commitment and skills to act as agents of change, (4) constructivist views of leadership, (5) learning about the experiences of others, and (6) culturally relevant leadership practices. Bates and Ahmed (2007, p. 188) define the frame used by the media to report disasters like the

ones under consideration here as “disaster pornography” suggesting that in the absence of proper information in the media coverage, the framing of disasters of this scale emphasize an I-it relation that perpetuates existing inequities rather than contribute to transformative action for environmental justice (democratic and disaster-resilient communities). They argue:

This choice between unification with others or detachment from other is the difference between what Buber (1970) call an “I-Thou” relation and an “I-It” relation. In an I-Thou relation, we relate ourselves as a subject to other people as objects. In disaster coverage, we too often enter into an I-it relationship to survivors. Instead of seeking a deep understanding of the other, media coverage allows us to observe the other from afar and keep ourselves out of moments of relationship with them as valued others (Bates and Ahmed, 2007, p. 187).

Ever present in the media labeling of those victimized by these disasters as “refugees”, Milvertha Hicks in the case of Katrina, was this I-It relation. It must be interrogated. It can be problematized with Lorde’s ideas since she, like Sandoval and Anzaldúa, advocates for speaking about the *Other* with an interstitial consciousness that rooted is in interdependency. Lorde (1984) argues for this by writing:

Within the interdependence of mutual (nondominant) differences lies the security which enables us to descend into the chaos of knowledge and return with true visions of our future, along with the concomitant power to effect those changes which can bring the future into being. Difference is that raw and powerful connection from which our personal power is forged (pp. 111-112).

Such interstitial consciousness is not accommodating of the media’s flagrant use of the term “refugee”. The literature cites three key problems with its usefulness as a concept.

First, studies of environmental refugees demonstrate a strong regional bias, with considerable amounts of work done in some parts of the world – namely Africa and Asia – and virtually none in others. Second, detailed case studies of conditions that produce environmental refugees are rare. Third scholars inclined toward international law, security concerns, and broader questions of migration resist the term “refugee. (Bates, 2002, p. 466).

Bates further suggests problematizing the concept of “environmental refugee” to distinguish different situations that generate migrants. I share in Lorde’s observation and Bates’s sentiment.

By thinking with the ideas of Sandoval, Anzaldúa, Roy, and Lorde to ground critical discourse and semiotic analysis, I have endeavored to feature the voices of non-government actors. Featured among these voices are NGOs like the *People’s Hurricane Fund & Oversight Coalition*, *A Roof for My Country/Un Techo Para Mi País*, *Tourism Concern*, *Andaman Legal Aid Society/Toward Freedom*, and the *Vieques Women’s Alliance*. Given this methodology, dissertation chapters are titled and aligned according to the following arrangement:

- i. Introduction, Methodology and Theoretical Framing
- ii. Learning Through Disaster or Crisis: The Educator’s Role in Bridging Classroom, Curriculum, and Community
- iii. Border Thinking as a Prerequisite for Disaster or Crisis Resistance and Resilience
- iv. Another World is Possible: Pedagogic Strategies for Confronting Empire
- v. Mediated Representations of Disasters or Crises through a Critical Place-Based Lens

- vi. Critical Geography, Public Pedagogy, and the Responsibility of Public Administrators
- vii. The Pedagogical Potential of Disaster or Crisis: Teaching Critical Environmental Education

While I don't specifically employ conversational dialogue, I rely on syncretic dialogue as a tool of womanist theorizing to explore ontological questions throughout my research process to better understand how hegemonic forces and interlocking systems of race, class, and gender expression impacted the decisions made regard the disasters considered. As such, dialogue is useful in evaluating knowledge claims (Brock, 2005, pp. 122-123). According to Layli Phillips (2006):

Dialogue is a means by which people express and establish both connection and individuality. Dialogue permits negotiation, reveals standpoint, realizes existential equality, and shapes social reality. Dialogue is the locale where both tension and connection can be present simultaneously; it is the site for both struggle and love (p. xxvii).

Besides, dialogical approaches accommodate heuristic inquiry which “legitimizes and places at the forefront personal experiences, reflections, and insights of [me], the researcher” (Brock, 2005, p. 124). Dialogue, as a site of emotional engagement and collective introspection, can also foment ideas for lasting social change. Specifically, in order to engage dialogically around the idea of disasters as socially constructed and unnatural, I embraced theoretical framing offered by Sandoval, Anzaldúa, Roy, and Lorde, while referencing syncretic dialogue in action like that which has occurred between Gloria Anzaldúa and various others (Anzaldúa & Keating, 2000), Pepi Leistyna

and Noam Chomsky (Leistyna & Sherblom, 1995), Pepi Leistyna and Paulo Freire (Leistyna, 2004), and Rochelle Brock and Oshun (Brock, 2005).

Again, the events of Katrina suggested a need to probe the extent to which, and the circumstances under which, personal judgments might be skewed by race bias. Instances in the Katrina story raise questions about the role that image of New Orleans as a predominantly poor and black city played in how public servants decided what to do. Images of desperate black New Orleanians juxtaposed with massive government failures raise issues of race and racism that must not be ignored. The critical race theory (CRT) concept of interest-convergence (Bell, 1980) was useful here because it helped explain the biopolitics of disposability operationalized since it adheres “to the following set of tenets: (1) Racism is normal, not aberrant in US society; (2) storytelling is an important form of exploring race and racism in society; (3) CRT theorists critique liberalism, and; (4) an emphasis on racial realism” (Ladson-Billings, 2009, p. 88).

Scholarly Significance

The Hurricane Katrina disaster, like the Asian tsunami disaster, the earthquake disaster in Haiti, and the disastrous consequences of naval occupation and resource colonization of Vieques, Puerto Rico reveal a segment of people in the world that inescapably remain entrenched in the category of what Fanon referred to as the “wretched of the earth” (Fanon, 1967). Simultaneously, these examples raise questions about matterability, answerability, and responsibility. In particular, “Katrina has illustrated our interconnectedness [*Ubuntu*], and it makes our personal accountability as members of a

conscious society ever more difficult to deny” (Jordan, 2007, p. 133). Ubuntu, in theory, dictates an ethic of educultural care that should guide practice in the classroom and on the streets when interacting with articulations of disaster or crises in varying contexts. This too is the project of womanist theorizing as encapsulated by “the ethic of caring” (Collins, 1991, pp. 212-215). It is the theoretical underpinning that accommodates “Usness” and the ability to empathize. Relevant ontological questions emerging within a womanist framework include: What does it mean when 12 percent of white Americans and 60 percent of black Americans surveyed nationwide believed that racism accounted for the federal government’s delayed response to Katrina (Marable, 2006)?; Do the prominent images of black hurricane and earthquake survivors along with brown-skinned tsunami and navy occupation survivors serve as a window into lingering race and class divides, or what Zeus Leonardo (2010, pp. 159-162) calls “racio-economics”. According to Leonardo, “racio-economics” reinforce commonsense justifications for racial hierarchy as well as national and global articulations of white supremacy and capitalism, or do both simultaneously. This reality underscores the impossibility of fully explaining these past events with a tidy and sanitized response since the meanings of these events exceeds the possible causes that may be assigned to them. “Reckoning with consequences” is an inadequate means of coming to terms with a catastrophe (Arendt, 1958, p. 300). Understanding, if it comes at all, will come from “dissolving the known into the unknown” making the event *strange* enough, through reflection, to see it with new eyes (Arendt, 1953, p. 382). Following Arendt, in order to come to terms with these disasters, for a moment, from reason to understanding, this dissertation has utilized the method of

critical discourse and semiotic analysis along with the theoretical frameworks of critical pedagogy, womanism, and critical race theory to make the Asian tsunami, Katrina, Vieques, and Haiti story at least temporarily strange. By focusing on the discourse of racio-economics in exposing these (un)natural disaster's impact on human lives imbued with complex race and class histories, I hope that I've contributed to laying a curricular foundation that will shape how society responds to, represents, and remembers (Eyre, 2007) disasters.

CHAPTER II

LEARNING THROUGH DISASTER OR CRISIS: THE EDUCATOR'S ROLE IN BRIDGING CLASSROOM, CURRICULUM, AND COMMUNITY

In all incarnations, these decolonizing politics work to make alliances across difference in what Black cultural warrior Bernice Reagon identifies as a new kind of "collective endeavor" or Anzaldúa calls the constitution of planetary "tribalism".

-Chela Sandoval (2012, pp. 3-4)

A 7.0 earthquake hits the island nation of Haiti, kills an estimated 300,000 people, leaves a reported 1.3 million homeless, and accentuates the precarious situation of a country whose last decades have been defined by economic hardships, environmental degradation, violence, instability and de facto governments who have transformed the country into the poorest nation in the Western Hemisphere. A hurricane becomes one of the most powerful (un)natural disasters the United States has ever experienced and ravages the Gulf Coast, ruining homes, wiping away towns, destroying precious memories and taking lives. A massive Sumatra-Andaman earthquake, measuring 9.3 on the Richter scale, generates enormous tsunamis that inundated coastal areas of the Indian ocean resulting in a high death toll, large numbers of displaced persons, and extensive destruction and damage to infrastructure, settlements and livelihoods. A small island nation and its inhabitants, occupied by the U.S. navy 1941-2003, suffer environmental, physical, and mental health concerns resulting from the impact of years of environmental

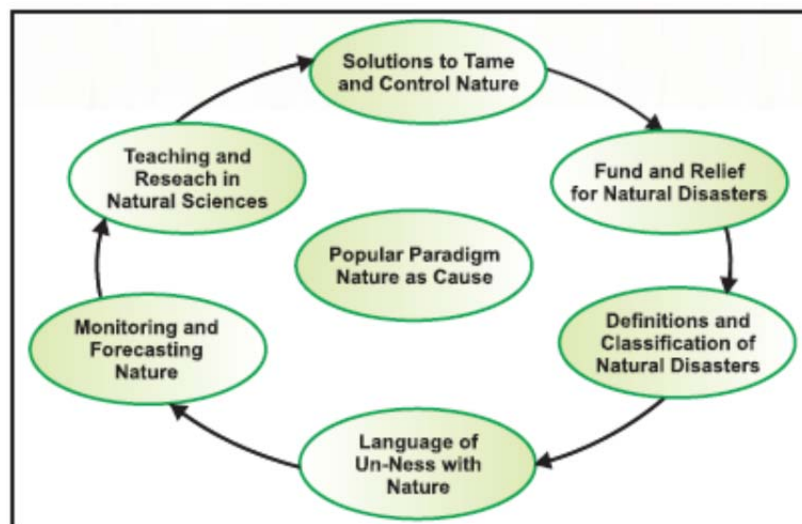
polluting and the destruction of the environment as a lingering vestige of military colonialism in Puerto Rico.

Why and how should educators help students distill lessons from these (un)natural disasters, utilize them to develop systemic critique, and to engage in critical reflection with root cause analysis rather than ignore them or worse normalize them? When educators don't seize the opportunity to teach about human crisis such as these, they risk normalizing crisis and inequality and students lose valuable learning opportunities to develop empathy (Boler, 1997) and cultural competence (Zhao, 2010; Buehler et al., 2009; Santamaria, 2009; Allen & Hermann-Wilmarth, 2004; Ladson-Billings, 2001, 2000). These crisis, in particular, serve as teachable moments for concretizing and making more visible concepts like power and privilege, examining how and why disasters occur, interrogating our responses to them and evaluating what they reveal about our common future (World Commission on Environment and Development, 1987). Moreover, students miss the opportunity to uncover deeply embedded assumptions and values that guide how they view themselves and others in the world. Not least of all, educators are responsible for maintaining a conversation that validates the relevance of these events, legitimizes the critical questions that students may ask when exploring them, and challenges students to learn from as "teachable moments".

Culturally relevant learning environments are vital for allowing students to problematize (Greene, 1981, p. 391) multiple types of geological hazards and ecological disasters and to examine their complexity and interrelationships. Such a classroom setting accommodates asking questions such as: "What makes disaster predictable? What

economic relationships encourage social vulnerability? Do “natural” hazards democratize risk” (Beck, et al. 2004)? Is a “different way of doing business” in a capitalist society possible? According to Trujillo-Pagan (2010), “instructors who focus on the social context of disasters can explore with students ways to secure resources through productive collectivities and collectively *influence* decision-making about allocation over the longer run” (p. 35), an idea she calls “radical recovery”. The idea of radical recovery involves structural change to prevent future disasters by problematizing three assumptions about disasters: First, that disaster is unavoidable. Second, that disaster is temporary. Third, that recovery is personal (Trujillo-Pagan, 2010, p. 34). In this way, the distinction between social and natural disasters is blurred; thus, what is considered “natural” can be seen as human-produced (Pelling, 2003). Also the “un-ness” of disasters as unexpected, unprecedented, unscheduled, unplanned, uncertain, unintentional and unseen or the popular paradigm of nature as cause is rejected. This tendency to blame and frame nature for disasters is reflected in Figure 6 (Oxfam, 2008):

Figure 6. Blaming and Framing Nature for Disasters



Disasters invariably affect the most vulnerable whose vulnerability is impacted by human policies and practices (Oxfam, 2008). By embracing this notion of radical recovery, disaster can be used as tool to denaturalize the impact of natural hazards and disrupt assumptions about human accountability, social structure, and human policies and practices. Katrina, as a case in point, was a disaster because communities were built in low-lying, underserved, and resource-poor areas and because local, state, and federal institutions did not allocate resources for flood prevention and evacuation. Additionally, historical segregation of populations based on race in New Orleans exacerbated the situation by reinforcing social inequalities.

Several curriculum perspectives, inclusive of what is possible for a collective as opposed to disengaged individualism, support rigorous classroom dialogue among teacher and students on culturally relevant subjects like natural hazards and (un) natural disasters. As an illustration, educational philosopher, teacher, and activist Grace Lee

Boggs (1974) proposes a community-centered philosophy that stresses “the community itself with its needs and problems must become the curriculum” (p. 74), if students are to achieve not only academic success but also contribute to the development of their communities. This program for education prepares students “to govern” in the best interest of their communities. According to the key principles proposed by Boggs, this type of education must: (a) be based on a philosophy of history that enables students to realize their “highest potential” as human beings; (b) include clearly defined goals and social purposes “for changing society . . . and ourselves”; (c) be responsive to the community; (d) include a wide variety of resources and learning environments (e.g., the city and countryside); (e) include living struggles to enable students to “rebuild their communities” and “transform themselves”; (f) include bodily self-knowledge and well-being; and (g) include preparation to govern.

A second perspective is advocated by environmental educator David Orr (1991) who offers six similar principles of education that are also valuable for students in any socio-cultural context: (a) All education is environmental education; (b) the goal of education is not mastery of subject matter but of one’s person; (c) knowledge carries with it the responsibility to see that it is well used in the world; (d) we cannot say that we know something until we understand the effects of this knowledge on real people and their communities; (e) education should recognize the importance of “minute particulars” and the power of examples over words; and (f) the way learning occurs is as important as the content of particular courses (Orr, 1991, pp. 54-55).

A third, but essential perspective, is posed by Pamela Bolotin Joseph (2000) who advocates cultures of curriculum as a way to engage in systematic inquiry and to change consciousness about the curriculum exemplified in the classroom. The framework that she proposes encourages thinking about curriculum as overlapping and conflicting orientations with the following goals:

- I. **Training for Work and Survival:** To gain the basic skills, habits, and attitudes necessary to function in the workplace and to adapt to living within contemporary society.
- II. **Connecting to the Canon:** To acquire core cultural knowledge, traditions, and values from the dominant culture's exemplary moral, intellectual, spiritual, and artistic resources as guidelines for living.
- III. **Developing Self and Spirit:** To learn according to self-directed interests in order to nurture individual potential, creativity, and knowledge of the emotional and spiritual self.
- IV. **Constructing Understanding:** To develop fluid, active, autonomous thinkers who know that they themselves can construct knowledge through their study of the environment and collaborative learning with others.
- V. **Deliberative Democracy:** To learn and to actually experience the deliberative skills, knowledge, beliefs, and values necessary for participating in and sustaining a democratic society.
- VI. **Confronting the Dominant Order:** To examine and challenge oppressive social, political, and economic structures that limit self and others and to develop beliefs

and skills that support activism for the reconstruction of society (Bolotin Joseph, 2000, pp. 12-13).

The viewpoints of Boggs, Orr, and Bolotin Joseph are reflected in what John Dewey (1900/1990) understood as the “organic link between theory and practice” (p. 85). Such a postmodern approach to teaching and learning is ecological and holistic in that it requires concrete links between the curriculum, classroom instruction, and the social, cultural, and economic environments of the learner. In particular, an ecological and holistic curricular orientation demands classrooms that prioritize learning opportunities focused on deliberative democracy and constructing understanding as described by Bolotin Joseph. Classroom and outside of the classroom experiences, in this vein, are dialogical and constitute what Slattery (1995) names reflective dialogue, autobiographical journals, nonconfrontational debate, cooperative investigations, and probing questions (p. 173). Teaching in the context of disasters, through dialogue, then transforms the classroom into a place of solidarity that can lead to future activism, community engagement, and the building of a comparative frame that utilizes disasters as a tool to raise revolutionary questions about the doing business-as-usual approach in the world.

Novel questions must be raised in classroom settings if neoliberal profiteering from twentieth and twenty-first century disasters like those that occurred in Haiti, New Orleans, Southeast Asia and Vieques, and Puerto Rico is to be end. The repercussions sustained by environments and communities from these disasters have been worsened by what Naomi Klein (2007a; 2007b; 2005) names the “shock doctrine”, a philosophy of power insisting that the best time to advance unpopular neoliberal economic policies is in

the aftermath of a shock, precisely large-scale disasters that make us lose our bearings and narratives such that we are more vulnerable to political manipulation. Foremost, as a philosophy of power, the goal of the shock doctrine is to ensure that “disaster capitalism”, the use of disaster or cataclysmic events (economic meltdowns, terrorist attacks, wars, or natural disasters) to push a radical capitalist program usually involving privatization of the state inclusive of but not limited to commercializing public schools for profit and eliminating affordable housing. Specifically disaster capitalism is described as

orchestrated raids on the public sphere in the wake of catastrophic events, combined with the treatment of disasters as exciting market opportunities. This entrepreneurial trend has played a key role in targeting and exploiting all children, people of color, women, the poor, and the colonized in larger society and more recently in New Orleans post-Katrina (Salazar Perez & Canella, 2010, p. 153).

Such neoliberal market forces invite critique. Foregrounding this critique, in addition to Naomi Klein, are scholars like Henry Giroux (2006), Kenneth Saltman (2007), Michael Tabb (2000), and Chela Sandoval (2000, 1991). Saltman specifically names the practice of rebuilding public schools after a disaster or crisis “smash and grab”. In the “smash and grab” atmosphere of commercial schooling, the focus of education is centered around a corporate structure of production and profit rather than on fostering critical democratic principles in its citizenry. As Tabb notes, in order for the full marketization of education to take root and for neoliberalism to enmesh itself in the public sector, the quality of public sector education must be dismantled. Of primary concern to both Klein and Saltman is that neoliberalism works to undermine egalitarianism, self-governance, and meaning-making activities on which a democratic culture is built that is inclusive of a

strong and diverse regional economy, large shares of skilled and educated works, wealth, strong social capital, and community competence (resilience). Illustrations of post-Katrina circumstances resulting from neoliberal policy changes are a decentralized school system, the creation of a business model of education, and an increase in the number of charter schools. This neo-liberal approach to educating children attempts to commodify schools by them in a “self-regulating” (Apple, 2001, p. 39) market and identifies students as “human capital” (Apple, 2001, p. 38) and parents as consumers.

Clearly in the case of the crises under discussion here, the true disaster for ordinary people from Haiti to New Orleans to Sri Lanka to Vieques has not ended with the cataclysmic event itself. In New Orleans, and many parts of Asia, land was appropriated from ordinary people for the benefit of elites and the tourism industry. The December 2004 Southeast Asian tsunami left almost 200,000 people dead or missing in Aceh, Indonesia alone and over half a million others displaced. Coastal towns and cities in India, Sri Lanka and Thailand also lay in ruin, and the waves killed nearly 100 people as far away as Somalia leaving an entire region in shock. But for some, the conditions were right to advance long-standing dreams of stripping what remained of welfare states in the area. The experience of Sri Lanka provides one of the most telling examples since themes such as privatization of water and land-grabs, in essence “smash and grabs”, featured heavily in subsequent reconstruction projects for tsunami-hit areas. Sri Lanka, like New Orleans, has been victimized by the nuanced strategies of disaster capitalism (“smash and grabs”) which have entrenched spaces of inequality along ethno-nationalist divisions that perpetuate patronage and existing disparities, thus entrenching the powerful

and excluding the weak. As with New Orleans, neoliberal policies have been subtlety and strategically deployed. Given the degree of destruction incurred by Sri Lanka and its inhabitants, it would be naïve to assume that the challenge of post-tsunami reconstruction and recovery was solely limited to the physical act of rebuilding houses. Because communities are embedded in social structures, the act of offering permanent and temporary structures has to be understood within its political context. War, ethnic cleavages, and uneven development processes are all attributes of the Sri Lankan social fabric, pointing to the need to pay attention to the politics of inequality in tsunami-affected communities.

Eastern Sri Lanka, for example, is war-ravaged and steeped in a highly fraught and politically contentious environment. In Batticaloa, the political tensions between the LTTE (Liberation Tamil Tigers for Eelam) and LTTE-Karuna factions meant not simply skirmished and outbreaks of violence that add to the political turmoil in the area but also different dictates on the buffer zones to be maintained in the post-tsunami period. People tend to be caught between policy directives by the state, the LTTE, and LTTE, and LTTE-Karuna factions adding to the existing insecurities and fear of unstable futures. Security-led immobility, sporadic classes, and outbreaks of violence together with LTTE-imposed draconian tax burdens also worsened structures of poverty and bore negatively on the welfare of local people. Further, the liberalization reforms that began in 1977 witnessed gradual but steady transformations to the previous social safety nets, denting income distribution patterns in tangible ways. The distributional impacts together with conspicuous consumption patterns culminated in the JVP (Janatha Vimukthi Peramuna:

People's Liberation Party) – led insurrection during the 1980s. Social tensions, ethnic segmentation, and economic inequities underpinned this violent period in Sri Lanka's postliberalization phase. Fragmented development and patterns of social exclusion continue to be widespread in the country, shaping a politics of inequality in as much as uneven development, and bloody ethnic war. This was the backdrop against which the tsunami took place, where people had to make sense of a "natural" disaster (Oxfam, 2008). This experience is not unique to Sri Lanka, with the United States manifesting ethnic and racial demarcations in dealing with reconstruction and recovery. Fothergill et al. (2004), in examining the intersections between race and ethnicity of people's experiences of disasters, point to the problems encountered by people of color in securing permanent housing where there is evidence of racism in the housing process as well.

That we've long known how to prevent the majority of people's susceptibility to future disasters, even without high-tech warning systems, is telling. The discussion on inadequate structures that people live in, then, necessarily extends to a discussion of structural inequality present in the political and economic systems that ensures the poor, the disenfranchised, and those who are considered unimportant to the economy will bear the brunt of disaster or that certain bodies are more disposable than others (Giroux 2006). For a biopolitics of disposability to succeed, three distinct material realities of analytics must be in place. First, certain systems of knowledge must be privileged that dictate specific cognitive and normative maps capable of defining both subjects and objects. Second, certain regimes of Truth must be privileged that cannot be separated from power that disseminates certain forms of knowledge. Third, the biopolitics of disposability is

preoccupied with objectification or othering of subjects (subjectivation) in order to privilege the authority of particular scientific, medical, moral, and religious experts on the arrangements of bodies and sexes with the goal of making the judgments of those authorities socially accepted (Lemke, 2011, pp. 119-120). According to Lemke, the only critical ethos capable of dismantling the current institutional and discursive dominance of the biopolitics of disposability is what he refers to as the analytics of biopolitics.

An analytics of biopolitics, on the other hand, seeks to generate problems. It is interested in questions that have not yet been asked. It raises awareness of all those historical and systematic correlations that regularly remain outside the bioethical framework and its pro-contra debates. An analytics of biopolitics opens up new horizons for questioning and opportunities for thinking, and it transgresses established disciplinary and political borders. It is a problematizing and creative task that links a diagnostics of the contemporary with an orientation to the future, while at the same time destabilizing apparently natural or self-evident modes of practice and thought- inviting us to live differently. As a result and analytics of biopolitics has a speculative and experimental dimension: it does not affirm what is but anticipates what could be different (Lemke, 2011, p. 123).

Thus, in order to disrupt the consequences created by the biopolitics of disposability, a transdisciplinary dialogue among different cultures of knowledge, modes of analysis, and explanatory competences is required. This transdisciplinary dialogue is most appropriately facilitated by teachers and other cultural workers who engage in meaning-making activities and signifying practices that are grounded in critical pedagogy, critical race theory, and a critical feminist epistemology. The meaning-making activities and the signifying practices of teachers and other cultural workers matter tremendously as they uphold or disrupt broader public discourses on the analytics of biopolitics

Culturally relevant curricula that denaturalizes disasters and teaches (about) disaster capitalism is a start, but most important is to scale-up existing curricula that bridges the classroom and community to challenge the biopolitical project of neoliberalism which constructs natural disasters as vehicles to further fuel social inequities, institutional racism, and military colonialism. Giroux argues that “to significantly confront the force of biopolitics in the service of the new authoritarianism, intellectuals, artists and others in various cultural sites – from school to higher education to the media – will have to rethink what it means to secure the conditions for critical education both with and outside of the school” (2006, p. 190). In her elaboration of the “methodology of the oppressed”, Chela Sandoval theorizes strategies of resistance capable of intervening in the patterns of global neoliberalism, privatization, and militarism shaping the dominant biopolitics of the twentieth and twenty-first-century social states that intertwines with “market fundamentalism and contemporary forms of subjugation of life to the power of capital accumulation, violence, and disposability” (Giroux, 2006, p. 181). Such a pedagogical and material strategy is relevant to this discussion, utilizing curricula as a site to teach (against) disaster capitalism and the biopolitics of disposability because those most impacted by the patterns of global neoliberalism, privatization, and militarism intervening in natural disasters are those subjectivities that occupy spaces created by institutionalized racism, racism coupled with economic inequality, denied participation in the discourse and privilege of citizenship, and are invisible in the public realm. “That racist measures are not only retained, but actually extended, suggests that policy-makers have decided (tacitly, if not explicitly) to place

race *equity* at the margins – thereby retaining race *injustice* at the center” (Gillborn, 2005, p. 485).

In this and subsequent chapters “*institutionalized racism* is defined as differential access to goods, services, and opportunities of society by race that manifests itself both in material conditions and access to power” (Phyllis Jones, 2000, p. 8). Because of this, I operate from the premise that “because of institutionalized racism, there is an association between socioeconomic status and race in this country” (Phyllis Jones, 2000, p. 8). For that reason, visibility in the public realm cannot be undervalued as:

The public realm is not merely a space where the political, social, economic, and cultural interconnect; it is also the pre-eminent space of public pedagogy – that is, a space where subjectivities are shaped, public commitments are formed, and choices are made. As sites of cultural politics and public pedagogy, public spaces offer unique opportunity for critically engaged citizens, young people, academics, teachers, and various intellectuals to engage in pedagogical struggles that provide the conditions for social empowerment. Such struggles can be waged through the new media, films, publications, radio interviews, and a range of other forms of cultural production (Giroux, 2006, p. 191).

Accordingly Sandoval’s methodology of the oppressed appropriates dominant ideological forms and applies them to political struggles in order to subvert oppressive protocols of subjugation and exploitation while ensuring social transformation. It’s potential to illuminate disaster capitalism and contest the biopolitics of disposability lies in its framing as a methodological tool capable of transforming existing material conditions into sources of liberating strategies. For this transformation to occur, Sandoval emphasizes that it is necessary “to comprehend, respond to, and act upon” economic, political, and cultural forces affecting consciousness and identity (1995, p.

408), understanding that these forces create “particular subject positions within which the subordinated can legitimately function” (1998, p. 57) in a postmodern context.

Simultaneously, Sandoval advocates recognizing cultural hybridity as an effect of postmodern conditions born from cultural transnationalization. This she theorizes as “differential postmodern form of oppositional consciousness”, a pedagogical and material strategy of survival that has emerged out of postmodernity (1995, p. 409). Sandoval characterizes this strategy best as a cultural typography stating:

The *cultural typography* delineates a set of critical points within which individuals and groups seeking to transform dominant and oppressive powers can constitute themselves as resistant and oppositional citizen-subjects. These points are orientation deployed by those subordinated classes who seek subjective forms of resistance other than those determined by the social order itself. These orientations can be thought of as repositories within which subjugated citizens can either occupy or throw off subjectivities in a process that at once enacts and decolonizes their various relations to their real conditions of existence (Sandoval, 2000, 53.4).

With her characterization, Sandoval identifies the potential of hybridity for an oppositional political stance as it undermines master narratives of sociopolitical forces – neoliberalism, racism, colonialism, militarism, patriarchy, etc. – with its principles of mobility, partiality, non-essentialism, and cyborg forms. Challenging singularity, homogeneity, and totality of social reality, the positioning in hybridity generates agency and consciousness that counter objectification and oppression without reproducing the hegemony that such positioning strives to overthrow. Such hybrid subject positions enables a continual movement between and among different oppositional ideological positioning and are representative of Gloria Anzaldúa’s “*mestiza*”, Alice Walker’s

“womanist”, and Audre Lorde’s “Sister Outsider” (Sandoval, 2000, p. 61.2). This is why Sandoval grounds “differential consciousness” in hybrid positioning emerging out of “correlation, intensities, junctures, crises” (1998, p. 59). “In this sense the differential mode of consciousness operates like the clutch of an automobile: the mechanism that permits the driver to select, engage, and disengage gears in a system for the transmission of power” (Sandoval, 1991, p. 14). Moreover, validating the impossibility of wholeness and exposing the limitations of essentialism, the hybrid mode of being generates coalitional forms of social positioning that insist on alignment of different social subjects and theories around affinity rather than difference. Sandal asserts such lines of affinity occur through “attraction, combination, and relation carved out of and in spite of difference” (1995, p. 413). She also sees urgency of coalitional positioning precisely in the conditions of postmodern globalization that work across difference and essence in “techno-human” space. The techno-human place where this coalitional consciousness is best deployed is in the public realm for it is here that “new technologies of communication such as the Internet, camcorder, and cell phone” etcetera can be used in “political and pedagogically strategic ways to build protracted struggles and reclaim the promise of democracy that insists on racial, gender, and economic equality” (Giroux, 2006, p. 191).

The differential maneuvering required here is a sleight of consciousness that activates a new space: a cyberspace, where the transcultural, transgendered, transsexual, transnational leaps necessary to the play of effective stratagems of oppositional praxis can begin” (Sandoval, 2000, p. 62.3). This cyberspace/techno-human space/public

space is where intellectuals, artists, and others in classrooms and communities can do cultural work and act as critical democratic subjects with “the capacity to understand claims to truth in relation to the securing of authority and a sense of agency to act with others to challenge the forces that produce oppressive, unjust, and unequal economic, political and cultural conditions and social relations” (Saltmann, 2010, p. 14). This is engaging in meaning-making activities and signifying practices (Sandoval, 2000, p. 91.2). Otherwise stated, this is proposing U.S. third-world feminism emphasizing strategic and multiple subjectivities that are grounded in “tactical and performative” differential and oppositional movements with “the capacity to de- and re-center depending upon the kinds of oppression to be confronted, depending upon the history of the moment” (Sandoval, 1998, p. 60). “The recognition of this new taxonomy should also bring into view a new set of alterities and another way of understanding “otherness” in general, for it demands that oppositional actors claim new grounds for generating identity, ethics, political activity” (Sandoval, 1991, p. 9). As Chandra Mohanty (1991) points out, this form of agency is generated from material conditions and the lived experience of women of color; “this is a notion of agency born of history and geography” (p. 37). Applied here, Sandoval’s notion of cyberspace/techo-human space/public space reconceptualizes capitalist hegemony that has led to the privatizing of public schools, public housing, and public service-oriented spaces in post-disaster regions of the world like Sri Lanka, New Orleans, Haiti, and Vieques, Puerto Rico in favor of a “political imaginary” (Gibson-Graham, 2006, p. xxvi) that accommodates repoliticizing economic politics and examining spaces where others have resisted capitalism, boundaries

established by neoliberal, patriarchal discourse may be broken down to allow for diverse economic ways of being.

Additionally, “in the context of formal schooling, this means fighting against the corporatization and privatization of public schools” (Giroux, 2006, p. 190) or neoliberal policy remaking public schools; here, New Orleans, post-Katrina is most instructive.

“Often coined as the “great experiment”, New Orleans is viewed as a model for privatizing once-public services for young children, both nationally and globally”

(Salazar Perez and Cannella, 2010, p. 145).

Examples of the situations produced by policy changes after Katrina include (1) the ability to quickly and exuberantly refurbish particular schools serving the wealthy like Lusher charter school in Uptown New Orleans, (2) access interpretations that inhibit free, and continued right of entry to a public school because of “hidden” admissions requirements (e.g., parent participation standards that influence the child’s continued acceptance as a student in the school), (3) a decentralized system that results in some children and their family searching for a school (e.g., 20+ different entities operating 30 schools at one point in time), and (4) the creation of a business model of education that encourages cuts in school expenditures, adversely impacting teachers, students, and communities (for example, by eliminating enrichment programs and services for children with special needs and failing to provide adequate facilities/instructional materials for students and teachers (Salazar Perez and Cannella, 2010, pp. 152-153).

“What is crucial to grasp is that *federal and state power is being used to radically localize control over schooling yet in ways that do not increase local democratic control*”

(Saltmann, 2007, p. 51).

Under the guise of “urban renewal”, in this localized, and even globalized, context, neo-liberal public-private initiatives such as voucher schemes and the Hope VI partnership are wielded as biopolitical tools to dispossess residents of their lands, schools,

and homes to provide profits for investor to remake the landscape (Saltman, 2007, pp. 38-39). Because of Hope VI “mixed income housing has replaced former public housing around the United States” (Saltmann, 2009, p. 39). Originally conceived as replacement housing for the poor, HOPE VI quickly morphed into a new strategy for replacing the poor themselves. Strategically-sited public-housing projects like New Orleans St. Thomas homes were demolished to make way for neo-traditionalist townhouses and stores (in the St. Thomas case, a giant Wal-Mart). These “mixed-use, mixed-income” developments are typically advertised as little utopias of diversity, but as in the St. Thomas case, the real dynamic was exclusionary rather than inclusionary, with only a few project residents being rehoused on site. Nationally, pre-Katrina, HOPE VI led to a net loss of more than 50,000 units of desperately needed low-income housing. Not only did Hope VI, as a public policy, foreshadow the future enactment of disaster capitalism in New Orleans, it ushered in a gentrifying of disaster. Haiti and Vieques are not without exception.

Higher education, in as much as K-12 schools, has a role to play and “what might be instituted and fought for in higher education is a critical and anti-racist pedagogy that unsettles, stirs up human consciousness, and inextricably connects the fates of freedom, democracy, and critical education” (Giroux, 2006, p. 190). The role of higher education, as suggested by Christine Sleeter (2008), should be to advance the pillars of equity and democracy. These pillars include preparing teachers “for everyday realities and complexities of schools and classrooms; content knowledge and professional theoretical knowledge that universities can provide; dialog with communities in which schools are

situated” (Sleeter, 2008, p. 1948). Most essential for advancing equity and democracy in teacher education and resisting the pressures of neoliberalism is a willingness of teachers, at all stages or preparation, is to embed themselves in communities for purposes of dialoguing and partnering with all members. This implies a willingness on the part of teacher educators to “become more aware of what neoliberalism is and how it is impacting on a range of social systems” (Sleeter, 2008, 1955). One way for teacher educators to learn about neoliberalism’s impact on educational privatization’s replacement of public schools with educational management organizations (EMOs), vouchers, and charter schools in disaster areas is to take a required course in educational policy. Such a course would examine policies such as No Child Left Behind that are designed to deregulate schools, favoring business while undermining public oversight in regions. This course would also employ a case study method to examine current educational policies in places like New Orleans and Haiti that have fostered the involvement of business in schooling. Thus, teacher education must be willing to take on the task of not only preparing teachers to teach content knowledge, but also to deal with the complexities and realities of everyday life that learners will face. Teacher education preparation, then, becomes a site where colonized knowledges are contested such that the goal of education becomes to prioritize knowledges which lead to the practice of liberation and the creation of democratic public spaces (Mohanty, 2003, p. 170, 189). It is the creation of these democratic public spaces in the classroom that enable teachers to become critical educators who advance a curriculum that equips students with the cultural competence and knowledge to engage with the experience of others impacted by crises or

in this case knowledgeable about geologic hazards and to denaturalize disasters as that which kills the abject. If affected individuals are not known to us personally, it is often easy to comfortably carry out our daily lives, not needing to consider the humanity that connects people.

Students who are asked to consider how a crisis connects people may grow in their ability to think beyond themselves. The Southeast Asian tsunami, for example, allows students to examine the role of aid organizations like the *American Red Cross* and non-governmental organizations (NGOs) like the International Strategy for Disaster Reduction (ISDR) and to explore the contributions they can personally make. In fact, across the globe, the Red Cross plays an integral role in disaster risk reduction (DRR) by offering *Masters of Disaster* curriculum centered on a series of easily age-appropriate and content-specific (mathematics, language arts, social studies, and science) lesson plans that help organizations educate youth about important disaster safety and preparedness information. The curriculum contains lessons, activities, and demonstrations on disaster-related topics that organizations can incorporate into daily or thematic programming. The curriculum is non-sequential, allowing organizers to choose the lesson plans that best fit into their programming.

By stepping into others' shoes who have experienced disasters or been impacted by them, students can compare their worldview with those who have different experiences and utilize what Gloria Ladson-Billings (2002) calls perspective-taking. Educators can use perspective-taking to heighten student's media literacy compelling them to examine what they know against what they've seen in the media. Perspective-

taking is also nurtured by having students read the narratives of those who have been directly affected by human crises. Narratives also serve as important vehicles for students placing themselves in the experiences of others and seeing an event through different lenses. Creating a compassionate citizenry that is welcoming of diverse viewpoints and willing to empathetically examine different experiences involves helping students move from “I and It” to “I and Thou” (Buber, 1970).

Further, this perspective invites educators to courageously embrace what Megan Boler (1997) calls pedagogy of discomfort. Pedagogy of discomfort allows students to be uncomfortable as they think about the intersections between the past and the present, the role of emotions in constructing meaning, and how normalized discourses of “truth” can be challenged. Some current curricular examples that challenge normalizing discourses of “truth” regarding disasters is reflected in ISDR programs that operate as *ActionAid* and *Practical Action* in Bangladesh, *Disaster Primary Schools* (DAPS) in Indonesia, *National Institute of Disaster Management* (NIDM) in Sri Lanka, *Save the Children* in Thailand and India, *Sustainable Economic and Ecological Development Society* (SEEDS) and *World Vision* in India, and *Aceh Partnership Foundation* and *Red Cross Society* in Indonesia just to illustrate a few examples (International Strategy for Disaster Reduction 2008, 2007). Specifically, the ISDR proposes ways and measures to reduce the impact of disasters triggered by natural hazards and documents practices that offer accessible case studies that equip educators with tools to incorporate a culture of disaster prevention and risk reduction in their daily curriculum are. ISDR also brings many organizations, universities, institutions together for the common objective of reducing the number of

dead and injured by disasters triggered by geological hazards such as floods, earthquakes and volcanoes. Just as organizations like the Union of Concerned Scientists and the Global Footprint Network have focused the public's attention on mapping their ecological footprint in response to how much a person or nation consumes, expressed in areal of land, equally important is utilizing the text of past geological hazards to route ourselves to more resiliency and better preparation against future geological hazards. In so doing, I suggest conceptualizing a disaster risk reduction footprint (Figure 7). Just as it is important for environmental science to explore the multitude of ways in which human activities affect the environment by measuring the impact of a person or a country on world resources employing an individual's or nation's ecological footprint, so too is it necessary to model a similar tool that qualifies the contributing factors of an individual's or nation's disaster risk. A starting point for assessing disaster risk with the goal of reducing it and for promoting a culture of disaster resilience that accounts for the physical, social, economic and environmental variables that make nations and people vulnerable to disasters is the *Hyogo Framework for Action (HFA) 2005-2015*, an initiative of the ISDR. The HFA is the first plan to explain, describe and detail the work that is required from all different sectors and actors to reduce disaster losses. It was developed and agreed on with the many partners needed to reduce disaster risk - governments, international agencies, disaster experts and many others - bringing them into a common system of coordination. The HFA outlines five priorities for action, and offers guiding principles and practical means for achieving disaster resilience.

- 1) Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- 2) Identify, assess and monitor disaster risks and enhance early warning.
- 3) Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- 4) Reduce the underlying risk factors.
- 5) Strengthen disaster preparedness for effective response at all levels.

Its goal is to substantially reduce disaster losses by 2015 by building the resilience of nations and communities to disasters. This means reducing loss of lives and social, economic, and environmental assets when hazards strike.

“Routedness” to Constructing a Disaster Risk Reduction Footprint

Many measures can be taken to foster a more resilient disaster risk reduction footprint (see Figure 7) in an effort to reduce the impact of natural hazards.

Figure 7. Disaster Risk Reduction



For example, upgrading building construction and infrastructure is a safeguard against earthquakes. In many instances, an earthquake does not kill people, but houses do when they collapse as was the case in the 2010 Haiti earthquake. If earthquake resilient homes are built in areas prone to earthquake, people will have a much better chance of survival when disasters strike.

Public policy legislation is another tactic. If the construction of hotels is prohibited up to 200 meters from the sea, tourists will be safer if there is a flood or a hurricane. Arguably, education is the most critical tactical measure to reducing the negative impact of natural hazards since people who understand natural hazards and risk reduction are more likely to survive during disasters than those who do not. As a case in point, many people from the Semilieu Island survived the Indian Ocean tsunami because they knew that when an earthquake strikes in their island they are at a higher risk for a tsunami and must seek shelter on higher ground. These are just some of measures taken by the ISDR to encourage governments to do their part to reduce the impact of disaster.

In addition to public policy legislative initiatives, education of all people, but especially of youth, is paramount for reducing risks to disasters. Youth are one of the most vulnerable groups when disasters occur simply because of their age and lack of access to resources. To teach youth from an early age about the risks posed by natural hazards, ISDR has developed an online game aimed at teaching them how to build safer and sturdier villages and cities capable of withstanding disasters. The hope is that while playing the game, the player will learn how the location and the construction materials of houses can make a difference when disasters strike and how early warning systems,

evacuation plans and education can save lives. As an illustration, players can gain an overview or learn the facts behind many geological hazards like hurricanes, earthquakes, and tsunamis. With regard to hurricanes as tropical storms with winds reaching a constant speed of 74 miles per hour more, the IDSR Hurricane Game (Figure 8) teaches users about the elements most at risk during hurricanes, how communities can be more protected against hurricanes, and what to do prior to a hurricane (raising community awareness about hurricanes, the risks associated with cyclonic storms along with having an early warning system in place, as well as implementing structural measures to reduce or prevent the impact of winds, flooding and other damage from a hurricane). The game also teaches what to expect during a hurricane and after a hurricane. Perhaps most useful is that cases studies from regions like Cuba, Bangladesh, and Jamaica are offered that document pre- and post-hurricane preparedness. A screen shot captures this essence:

Figure 8. Hurricane Overview



Concerning earthquakes, sudden, rapid shaking or rolling of the Earth that happens when rocks break or slip along fault lines in the Earth's crust, releasing energy that causes the ground to move, the Earthquakes Game (Figure 9) exposes gamers to important facts to know about Earthquakes, the elements most at risk during earthquakes, how communities can be more protected against earthquakes, building safer structures prior to an earthquake, land-use planning related to seismic mapping/zoning and raising community awareness preparedness for earthquakes. Like the Hurricane Game, the ISDR Earthquake Game also provides useful case studies of earthquake-prone geographies like Nepal and suggestions for further learning. A screenshot of an Earthquake Key Fact follows:

Figure 9. Earthquake Key Facts



When it comes to a learning about a tsunami, Japanese word for “harbor wave” or a series of giant, long ocean waves (10 or more) created by an underwater disturbance such

as an earthquake, landslide, volcanic eruption, or meteorite and capable of moving hundreds of miles per hour in the open ocean and smashing into land with waves as high as 100 feet or more, the ISDR game profiles the 2004 Boxer Day Tsunami (Figure 10) to ask the central question, how can communities be more protected against tsunamis in addition to considering the necessity of having an early warning system in place, raising community awareness, educating about resiliency before, during, and after a tsunami along with the elements most at risk during a tsunami. A screenshot of a Tsunami Mission Report from the game follows:

Figure 10. Tsunami Mission Report



In the same way, but specifically in recognition of the miseries experienced by citizens of the Gulf State as a result of Hurricane Katrina on August 25, 2005, educators from Columbia University's Teachers College (Smith Crocco et. al, 2005) produced a curriculum project with the hope of encouraging democratic dialogues and civic engagement about the issues raised by the events associated with the hurricane as

illuminated by Spike Lee's film, *When the Levees Broke: A Requiem in Four Acts*. In enacting these goals, the curriculum aims to be provocative asking those who engage with it to consider issues of race and class unveiled in the aftermath of the storm and more effective ways of making poor, aged, and disenfranchised citizens less vulnerable in consideration of the following statement:

In sum, Katrina provides an unprecedented opportunity to communicate that "racism" is not just a matter of the psychology of hatred but is instead also a matter of the racial structure of political and economic inclusion and exclusion. This is one lesson from Katrina that social science should help communicate (Gilman, 2005).

The goals of the curriculum are for students to understand the many dimensions of governmental, communal, and personal responsibility implicated in situations of disaster; to develop a sense of empathy with victims of Hurricane Katrina, recognizing that all Americans are vulnerable to disasters of one form or another; to develop skills related to the process of democratic dialogue about controversial issues, especially race and class, as well as the ability to articulate judgments about where they stand based on evidence; and to use their new knowledge and skills to get involved in their communities to improve the common good. The strength of this curriculum lies in its ability to problematize issues that are often times avoided: the meaning of racism, the increasing social class stratification of American society, and personal, communal and governmental responsibility for social welfare by framing the subject of Katrina and the levees as captured by the perspectives of those interviewed in Spike Lee's film. Framed this way, the levees act as discourse that dates and time stamps the failure of federal, state, and

local leadership that exacerbated the suffering felt from Katrina. Not least of all, the emphasis on democratic dialogue about these matters and responding to this deliberation with civic engagement are central purposes that are absent many K-12 science, social studies, mathematics, and English curricula. Democratic dialogues, structured discussions designed to tackle tough issues, ideally empower participants to determine their own futures by encouraging them to take action to address social, communal, and personal challenges. Since Hurricane Katrina left a taphonomic record (archaeological record of burial processes, trash removal, deposition, earthmoving, and demolition) there are multiple literacies and contexts to decipher that require innovative yet rigorous curricular approaches. The Teachers College Columbia University curriculum is such a curriculum focuses on three themes that Anthony Oliver-Smith (2002) describes as capitalizing of a taphonomic approach: (1) the nature-culture nexus, (2) vulnerability, and (3) the revelatory power of disasters stating. “Disasters occur at the intersection of nature and culture and illustrate, often dramatically, the mutuality of each in the construction of the other” (Oliver-Smith, 2002, pp. 24-25).

Hurricane Katrina, which encompasses all natural cultural events that constitute a perceived disaster, revealed the extent to which the “natural” landscape of southeast Louisiana has been humanly engineered and the consequences of that human engineering. Other rigorous curricula that focus on taphonomy related to disasters like Hurricane Katrina are: The New York Collective of Radical Educators (NYCoRE) *An Unnatural Disaster: A Critical Resource Guide for Addressing the Aftermath of Hurricane Katrina in the Classroom* curriculum; Public Broadcasting Service (PBS) *Frontline’s*

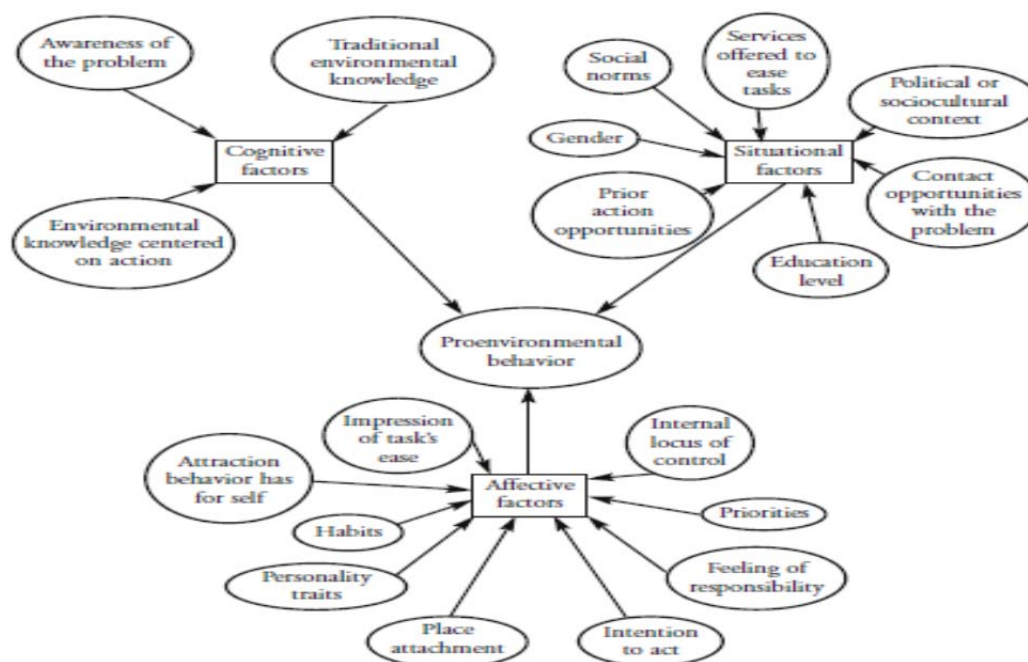
documentary “The Storm” curriculum; and The San Francisco Film Society Youth Education Program “Trouble the Water” curriculum. These curricula expose taphonomy “as a domain of activity integral to defining new terms of the culture – nature divide, addressing perceived vulnerability, and working out social contradictions and contestations exposed by disaster”(Dawdy, 2006, p. 728). The NYCoRE (2006) curriculum guide implores educators to create space in their classrooms for critical inquiry into the questions raised by the spectacle of Hurricane Katrina. This curriculum resource interrogates the historical, political and economic roots of the Hurricane Katrina disaster and its aftermath. Among the topics considered are: the legacy of African slavery, the criminalization of poor people of color, media bias, problems associated with the privatization of services, the capitalist interests that govern public policy, militarism, global relationships and the many costs of war, consumerism and related environmental degradation, and the racism inherent in our current political system etc.

Specifically, “The Storm” (PBS Frontline, 2005) chronicles over 40 years of federal responses to Gulf Coast hurricanes and their effectiveness. Like “Teaching the Levees”, the teaching activities are designed to help students engage in democratic dialogue to evaluate how the government helps citizens in times of crisis and examines how prepared students and their communities are for natural disasters. “Trouble the Water” (The San Francisco Film Society, 2009), winner of the Grand Jury Prize at the 2008 Sundance Film Festival, opens with a scene depicting the day before the storm makes landfall blocks away from the French Quarter. Kimberly Rivers Roberts and her husband Scott use their video camera to document their experience and that of their

trapped 9th Ward neighbors who struggle to make it to higher ground. They also manage to capture many dramatic rescues. The documentary culminates with Kimberly and Scott's return to the devastation of the 9th ward and their reaction to the repeated failures of government at the micro- and macro-levels. All in all, "Trouble the Water" provides opportunity for pre- and post-viewing democratic dialogue on issues like: the role of government, the role of media/news, social and civic responsibility, racism, and the problem of poverty in the United States.

The goals of these curriculum models, as reflected in the ideas of Boggs, Orr, Bolotin Joseph, and Dewey are highlight the purpose of disaster education as I view it. Particularly, echoing Orr, this type of education that prioritizes contextualizing human crises to promote social change and emphasize that knowledge gained through education carries with it the responsibility to see that it is well used in the world. Most importantly, environmental behaviors valuing cultural context (cultural traditions and family habits) are adopted. Pruneau et al. (2006, p. 5) summarizes the different cognitive, affective, and situational factors that researchers suspect of being environmental behavior indicators in Figure 11:

Figure 11. Positive Factors of Influence on Proenvironmental Behavior



Conceivably, our lived experience and the lessons learned from them constitute proenvironmental behavior. Since proenvironmental behavior is integral to ecological literacy which Orr (1992, p. 5) defines as place-based, ecological literacy deserves to be used as tool for facilitating disaster education in as much as it promotes proenvironmental behavior.

CHAPTER III

BORDER THINKING AS A PREREQUISITE FOR DISASTER OR CRISIS RESISTANCE AND RESILIENCE

Caminante, no hay puentes, se hace puentes al andar (Voyager, there are no bridges, one builds them as one walks).

—Gloria E. Anzaldúa (1981, p. vi)

Arguably, denaturalizing disasters or crises to teach about them in the classroom or on the streets offers the potential to change mediated messages about them. Three factors of greatest consequence are: (1) an educator's willingness to mobilize her differential consciousness, (2) an educator's willingness to bridge classroom, curriculum, and community, and (3) an educator's willingness to encourage proenvironmental behavior. As Sandoval (1991, p. 23) reminds us, "entrance into this new order requires an emotional commitment within which one experiences the violent shattering of the unitary sense of self as the skill which allows mobile identity to form". Strategically, "this "violent shattering" enables social actors to recognize, evaluate, and transform contradictions and differences into tactical interventions" (Keating, 1996, p. 8). Here, crises or disasters, like Vieques, the Asian tsunami, Katrina, and Haiti earthquake are conceptualized as "contradictions and differences" demanding the tactical interventions of spirited and resilient social actors. Social actors are theorized as groups that engage in sustained exercises of agency that seeks to challenge and/or change specific aspects of

their society through non-institutionalized forms of participation, representation and membership.

Further, Trujillo-Pagan (2010) asserts that since crises or “disaster breeds solidarity” (p. 32), they are best engaged with the agency of varying social actors. “Social actors can chart the points through which differing oppositional ideologies can meet, in spite of their varying trajectories” (Sandoval, 1991, p. 2). Gloria Anzaldúa’s concept of *mestiza* consciousness (Anzaldúa, 2007, pp. 99-120) along with Donna Haraway’s cyborg⁴ skills (Haraway, 1991) resonates with Sandoval’s differential consciousness. These three concepts – differential consciousness, *mestiza* consciousness, and cyborg skills – foment border thinking (Martinot, 2006, p. 163) in social actors occupying multiple subject positions to transform any social order that is hierarchically organized into relations of domination and subordination. “These subject positions, once self-consciously recognized by their inhabitants, can become transformed into more effective sites of resistance to the current ordering of power relations” (Sandoval, 1991, p. 11). Strategically, “power is rooted in many ways: primary positions in the network of influence relations; personal attributes, cognitive power; resource-based power; shared power; technical expertise and staffing resources; political opportunity structure; and social relationships” (Choi & Kim, 2007, p. 198). Specifically, Anzaldúa’s depiction of the Shadow-Beast (Anzaldúa, 2007, p. 38) and the Coatlicue state (Anzaldúa, 2007, pp. 63-73), integral components of *mestiza* consciousness, position social justice movement actors to utilize border thinking to influence power relations. “To see oneself at those borders, internal to the society guarded by them, yet excluded by that society as other,

external to its self-definition while residing in its terrain, is to inhabit what Anzaldúa calls *nepantla* a place between perspectives, a place where identity assumptions cannot be in question” (Martinot, 2006, p. 169).

Accordingly, *mestiza* consciousness along with differential consciousness and cyborg skills are tools that social actors in pursuit of social and environmental justice mobilize to resist the “violent shattering” of hierarchically organized social orders that are under-resourced and marginalized. Extrapolating from Katrina, as has been described in chapters 1 and 2, the disasters or crises considered here were not simply devastating because of their ecologically hazardous impact, but rather because they were “birthed in institutional structures of racism and manifested in the crumbling infrastructure of schools and education and health care, and, later, in a hopelessly mismanaged relief and reconstruction, overseen by a confluence of forces ranging from multinational corporations to corporate relief agencies and military contractors” (Flaherty, 2007, p. 100). The common institutional structure of racism, that each of the four disasters share, is a history of colonialism that operates as a discourse which influences the socio-economic capacity of the people residing in the Vieques, Puerto Rico, Haiti, South Asia, and the Gulf Coast. Naomi Klein (2007; 2005) has repeatedly referred to this situation as “disaster capitalism” or the “relief and reconstruction complex” as discussed in chapters 1 and 2. This reality is further documented by the U.N. International Strategy for Disaster Reduction (2009) and Oxfam International (2008) which shows that there are only “natural hazards” which become “disasters” depending on human-made policies that make people more or less vulnerable to harm. Gulf Coast residents, as a case in point,

inhabit the interstice between “natural” and “unnatural” disasters since over the last seven years the Gulf has been hammered by Hurricanes Isaac, Katrina and Rita, levee breaches, the Great Recession and the BP Oil catastrophe.

In fact, seven years to the day that Hurricane Katrina and levee failures unleashed a deluge of devastation on the Gulf Coast, Hurricane Isaac brought its own distinctive mode of destruction while resurrecting the dreadful images of 2005: people marooned on rooftops, rescue workers breaking into attics with axes and the rescued clutching what little they had left. Hardest hit by Hurricane Isaac were the residents of Plaquemines Parish. Experience has taught these residents to be hardy and self-reliant; and they have been through it all: multiple hurricanes, the worst of the BP oil spill, and opting for occupations that are not generally associated with comfort and security (shrimpers, oystermen, ranchers, and oil patch workers). Much to the anger of the residents, the parish was largely walled out of the federal levee system. Like Haiti earthquake and Katrina survivors, they know what that means to inhabit an interstitial position as the dispossessed and biopolitically disposable. To inhabit a world of this interstitial position “is to inhabit what Anzaldúa calls “nepantla,” a place between perspectives, a place where identity assumptions cannot be in question” (Martinot, 2006, p. 169). From this in-between or nepantla place, resistance that constitutes social justice movements is born such that:

Resistance produces the awareness that race, femininity, gender, and nation are social categories, not “fixed features of personality or identity. Thus, one can see their inherent coloniality, the creation of inside/outside binaries by those given social categories. One’s space of consciousness, a new consciousness that allows an “us” not bound by monocultures to germinate (Martinot, 2006, p. 169).

Of interest here are social justice movements that not only arose out of the institutional injustice of Hurricane Katrina, but also that of Vieques, Puerto Rico, the Asian tsunami, and the Haiti earthquake because social justice movements that have unfolded from these situations “are given an existentially sovereign character by institutional exclusion, which engenders a pro-democratic alternate political space that transcends their specific demands. It is the place where alternate political structures become possible” (Martinot, 2006, p. 168). It is a place where resilience becomes commonplace. “To be resilient is to be able to recover from a major stress or shock” (Liu and Plyer, 2010, p. 1).” Thus, drawing further from Anzaldúa theory, I believe the social actors, chiseled from these institutional injustices and who formulated social justice movements because of them, constitute what Anzaldúa considers nepantleras. “Nepantleras are the supreme border crossers. They act as intermediaries between cultures and their various visions of reality They serve as agents of awakening, inspire and challenge others to deeper awareness, greater *conocimiento*, serve as reminders of each other’s search for wholeness of being” (“Speaking Across the Divide”, 2003-2004, p. 20). For that reason, nepantleras can contribute to a growing body of research on disaster resilience which argues that while technical issues like evacuation routes and other staples of disaster planning are critical, the best achievable and most practical way to prepare for disasters is to address long-standing social problems like poverty, racial disparities, and other social ills. Oxfam (2008), whose mission is to facilitate relief and recovery projects in the wake of disasters around the globe, examined factors that made communities more vulnerable to disasters and found:

The extent of damage wreaked by natural events is not solely down to nature. Poverty, exclusion, inequality, as well as inappropriate political decisions and actions all play their part. In other words, social conditions shaped by humans increase people's vulnerability to disasters and make recovery more difficult (2008, p. i).

In contextualizing all of these disasters or crises, it is clear that the spirit and resiliency of grassroots mobilization has been critical to bringing lasting political reforms, new political leadership, and a commitment to building affordable housing.

Therefore, I choose to focus on are *Make It Right Foundation* (MIR), *A Roof for My Country/Un techo para mi país*, *J/P Haitian Relief Organization* (HRO), *Common Ground* (CG), *Tourism Concern*, *The Asia Foundation*, *Vieques Women's Alliance*, and *Committee for the Rescue and Development of Vieques* "social movements and groups oriented toward more egalitarian, democratic and socially just forms of urban society who mobilize to challenge the spectacularization of everyday life and struggle to transform society" (Fox Gotham, 2007, p. 82). The common denominator among these social actors is their ability to organize and mobilize against "what Anzaldúa calls rupture, *El arrebató*" (Sieber, 2006, p. 336), and embed itself in the local community context in order to supply volunteer and survivor networks that provide demolition and construction crews, housing, community kitchens, health clinics, neighborhood councils, schools and so much more. Hence, in this chapter, the *El arrebató* and inequities caused by disasters are scrutinized for the way in which they galvanized social actors like *Make It Right Foundation* (MIR), *A Roof for My Country/Un techo para mi país*, *J/P Haitian Relief Organization* (HRO), *Common Ground* (CG), *Tourism Concern*, *The Asia Foundation*, *Vieques Women's Alliance*, and *Committee for the Rescue and Development*

of *Vieques* to mobilize politically and foster civic engagement on the ground while using Anzaldúan border thinking.

Organizing efforts in Louisiana have permeated national discourse on the intersection of environmental issues and social inequality. When government agencies were slow to respond to Katrina, myriad environmental and social organizations' attention and assistance in turn increased local campaigns visibility and bolstered an already powerful civil society infrastructure working on recovery (Morello-Frosch et al., 2011, p. 74).

One such local campaign that emerged two years after Hurricane Katrina made landfall and devastated New Orleans was the *Make It Right Foundation* (MIR) which focused primarily on housing. "Perhaps no issue is as disruptive to families as the loss of a place to call home" (Jones-Deweever, 2011, p. 309) since home holds memories – pleasant and unpleasant. Anzaldúa (2007) articulates this reality when she writes, "I am a turtle, wherever I go I carry 'home' on my back" (p. 43). From its inception, MIR represented an anomaly because it challenged the prevailing status quo of the construction and insurance industry that neither built disaster-resistant, sustainable, and energy-efficient homes nor endorsed non-state actors or civil society improvising their own decentralized survival systems.

Hardest hit was the Lower Ninth Ward. In order to comprehend the death, devastation, and destruction, some historical grounding is helpful. The Lower Ninth was settled from the late nineteenth century to the 1950s, and consisted largely of modest shotguns of various types – singles, doubles, camelback, and side-porch variants. Nearly all possessed the iconic front porches and gabled roofs. Katrina's tidal surge swept nearly every house of its foundation, some more than two blocks from their lots, even

dwelling built on masonry piers two to three feet above sea level. No one was left untouched by the devastation. Few residents of the neighborhood possessed flood or homeowners insurances, as most were renters. Among the homeowners, families had lived there for decades and it was not uncommon for a house to be passed on from one generation to the next. The neighborhood had to overcome the stigma attached to being targeted in Ray Nagin's January 2006 Bring New Orleans Back (BNOB) plan for transformation into a no-build wetlands zone (Ashleigh Ross & Zepedia, 2011; Day Jr., J.W. et al., 2007; Costanza, R. et al., 2006; Costanza, R. et al., 2006). More specifically, in the Lower Ninth Ward, 4,000 homes were destroyed and 1,000 residents lost their lives.

As one of New Orleans poorest neighborhoods, the Lower Ninth lay filled with unimaginable debris fields, mangled shotgun dwellings, and mud-filled cars flipped and turned beneath, within, on top of the twisted remains. The devastation of the neighborhood occurred not because its inhabitants were poor and lacking homeowner's or renter's insurance, but rather because of the biopolitics that were operationalized by public policy failures, such as the lack of an evacuation plan, and absentee federal, state, and local political leadership along with the abject failure of the Industrial Canal's poorly constructed federal floodwalls, combined with the failure of the Mississippi River-Gulf Outlet (MR-GO). This reality of the Lower Ninth Ward highlights the discourses of landscape and displacement is explored in more detail in chapter 6. Two years after the storm, in 2007 actor Brad Pitt toured the neighborhood and met with community groups and displaced families. Subsequently, Pitt pledged to commission signature architects to

rebuild the lower Ninth back “better” than its neglected condition pre-Katrina. His vision consisted of the construction of 150 new single-family, green, affordable, safe, and high-quality dwellings in the portion of the neighborhood nearest the levee breach. This is significant in that Brad Pitt: (1) utilized his celebrity unselfishly and with accountability; (2) utilized his cultural capital, especially his white male privilege, in the service of others; (3) chose to rebuild the neighborhood closest to the levee breach modeling how structures can be leveraged to promote a more sustainable lifestyle, empower those who dwell within, and provide residents with an overall better quality of life for a reasonable price. In particular, Pitts work with the Make It Right Foundation stands in contrast to that of Women of the Storm. Jordan Flaherty (2007, p. 108) observes:

Women of the Storm, a non-partisan group led mostly by wealthy white women from New Orleans, raised a lot of cash and publicity for their mission to fly to Washington and convince congressional representatives to come and view the devastation.

In fact on their first trip to Washington, the women representing Women of the Storm carried blue-tarp umbrellas, their signature symbol. Absent differential and critical consciousness, “in the hands of Women of the Storm, the umbrellas were strategically used in gendered performance, remembrance practices, and collective actions” (David, 2008, p. 143) to symbolize a post-disaster environmental context in New Orleans of blue-tarped roofs. It is not hard to imagine that this symbolism takes on a different significance for those in the Lower Ninth Ward, closest to the levees, whose homes were destroyed. For this reason, the action of Women of the Storm is tantamount to disaster tourism, which will be discussed later in the context of the Asian tsunami.

Thus, in December 2007, *Make It Right Foundation* was launched with the Pink Project, a unique hybrid of art, architecture, and media designed to heighten awareness of the plight of New Orleans, to raise money to construct new houses, and to commemorate the nearly 1,000 lives lost in Katrina in the Lower Ninth alone (Verderber, 2010). Pitt collaborated with the firm GRAFT on the installation of 150 pink art houses. These artifacts were at first positioned randomly on their “sites.” As donations were made to sponsor the cost of an actual dwelling, a skewed symbolic house was “righted” on its lot. The Pink Project raised \$12 million and was pivotal in attracting global media attention to the challenges and possibilities of rebuilding the Lower Ninth. Currently, the core MIR team includes William McDonough + Partners, Cherokee Gives Back Foundation, and GRAFT, and the New Orleans-based staff of MIR who works in conjunction with leaders of local, not-for-profit organization and has expanded to include nation and international architectural firms. The MIR housing design consists of affordable, green, storm resistant housing for the community, incorporating the latest in innovative and sustainable design.

Using the sustainable cradle-to-cradle approach of William McDonough, which seeks to maximize economic, ecological, and social value by following principles inspired by nature, MIR realized that the devastation caused by Katrina and delay in rebuilding created an opportunity and demand for innovation. Most importantly, the design can be replicated anywhere in the world (Clarke, 2009). The practical and accessible design is grounded in the ideas of William McDonough, who embraces a cradle-to-cradle green design philosophy: comfortable energy-efficient homes whose

materials can be recycled when they are torn down in the future (McDonough 2003).

This cradle-to-cradle green design signifies a Coatlicue state such that:

“Coatlicue” signifies a polydimensional connection to an autonomous tradition that provides a foundation upon which to transcend the paradoxical boundary of inclusive exclusion. It remaps the world, bringing its many dimensions into conjunction rather than contiguity as an intersection of identities. It produces a social domain that itself becomes an inside, a place of inclusion for which excluding the institutionality remains the outside (Martinot, 2006, p. 170).

At a time when energy costs are exorbitant, supplies are uncertain and concern about climate change is real, cradle-to-cradle green designed homes offers practical, accessible design and technological solutions for communities around the globe. To embrace this logic, is to “be in a state of what Anzaldúa calls “intimate terrorism” along with “a state of creation which opens up possibilities of resistance and solidarity” (Ortega, 2001, p. 20). By remapping the terrain of home design and construction and bringing into full view its sustainability and affordability, cradle-to-cradle green design opens up new housing possibilities that can galvanize families and communities around principles of green living and expedite post-disaster recovery. In this regard, green housing design operates as discourse.

Applied to the Lower Ninth Ward, there were several constraints on the designs. No house could cost more than \$150,000, of which, it was hoped, the new owners would be able to contribute 85 percent from insurance and government disaster funds. Since most of the lots were long and narrow, just 40 feet wide, the houses would also have to be long and narrow along with being raised eight feet off the ground like the home shown in Figure 12 built below by architect Hitoshi Abe from the *Make It Right Completed Home*

Gallery. To provide escape in a catastrophic flood, all homes were required to have a hatch in the roof. Equally important was sustainability. Geothermal energy was to provide heat, and solar panels were counted on to provide each house with at least 75 percent of its electricity – and even send power back to the grid on sunny days. Materials and equipment were required to meet the strictest environmental standards (Clarke 2009).

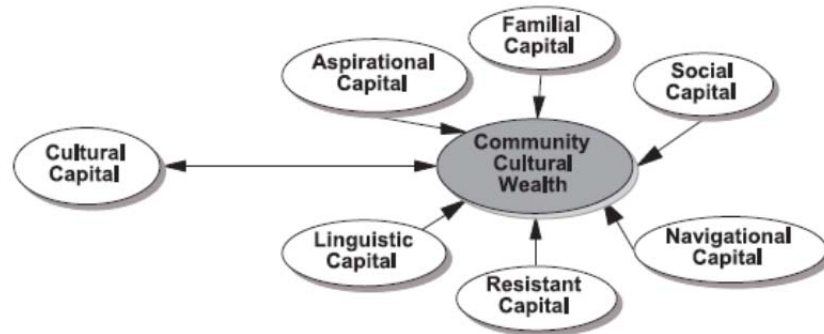
Figure 12. Hitoshi Abe Home Design in Lower Ninth Ward



Referencing MIR, a number of lessons can be learned from the Katrina experience. Seven years on, the task of rebuilding New Orleans remains daunting. In some quarters, a taphonomy exists to return to traditional, culturally authentic building styles post-Katrina raising the question is a pre-Katrina shotgun house any less an authentic expression than a signature-architect designed *Make It Right* house particularly since the architectural origins of the ubiquitous New Orleans shotgun are directly traceable to Port-au-Prince (Verderber, 2010)? “Taphonomy describes the complexity, the mix of accident and manipulation, the silences and erasures, the constraining

structures, and the sudden ruptures that all go into the creation of history and into the formation of the “ethnographic” present” (Dawdy, 2006, p. 719). Further, since the sections of Orleans Parish most severely flooded were also areas with the highest percentage of African American residents, these remain the area with the lowest percentages of recovery and of returned families. This geographic reality means that the archaeological record of the Lower Ninth will be significantly different from that of other neighborhoods. “Undoubtedly, the archaeological signature of Hurricane Katrina and the levee breaks will be visible in excavation profiles of the future” (Dawdy, 2006, p. 722). That is taphonomy. As many as 95,000 residents continue to live outside the city. A widespread belief persists among the city’s poor that they disproportionately bore the brunt of Katrina and its aftermath. It has been observed that Katrina has been perhaps the largest forced urban renewal project that Black America has ever experience (Mann, 2006). *Make It Right* has used its cultural capital to not only be a catalyst for redevelopment of the Lower Ninth Ward by building a neighborhood comprised of safe and healthy homes that are inspired by cradle-to-cradle green thinking with an emphasis on a high quality design, it has also worked to preserve the spirit of the community’s culture. For purposes of this discussion, a critical race theory (CRT) of community cultural wealth is employed such that Yosso’s visual model as depicted in Figure 13 is used to define cultural capital (Yosso, 2005, p. 78):

Figure 13. A Model of Community Cultural Wealth/Cultural Capital



MIR, as an organization that promotes and expansive definition of community cultural wealth, can also be viewed as an accessible model that has mobilized resources and social actors for building disaster-resistant sustainable homes worldwide. From this example, cradle-to-cradle green thinking and its architects or “what gets called resources can constitute the counter-revolution – taking back of power” (Solnit, 2010, p. 45). Figure 13 demonstrates that “community cultural wealth is an array of knowledge, skills, abilities and contacts possessed and utilized by Communities of Color to survive and resist macro and micro-forms of oppression” (Yosso, 2005, p. 77). Political agency resides in cradle-to-cradle green design thinking by extending the definition of capital to include built and human capital as reflected in its focus on losses to built infrastructure and human lives (Brown et al, 2007, p. 309). As Anzaldúa asserts, “In our *mestizaje* theories we create new categories for those of us left out of or pushed out of existing ones” (Anzaldúa, 1990, p. xxvi).

Before examining the social actors involved in Haiti’s post-disaster recovery and in an effort to further contextualize the gravity of MIR’s post-Katrina, the contributions of Common Ground (CG) must be noted since the collective and its individual actions

constitute signs of innovativeness that were absolutely necessary in the aftermath of Hurricane Katrina. Particularly,

The role of women during the disaster and evacuation remains largely invisible in Katrina scholarship and public narratives. Not surprisingly, African American women's work in evacuation is completely hidden in official media and governmental accounts. Why was this network able to accomplish what our government could not (Litt, 2008, p. 43)?

Common Ground Relief started with \$50 and three people in the immediate days of Hurricane Katrina making landfall on Monday, August 29, 2005. "By the second anniversary of the storm, CG had gutted over a thousand houses, primarily in the poor and working-class black Upper and Lower Ninth Ward; operated seven distribution centers which gave away food, water, clothing, and tools; offered computer and legal services; and started the Common Ground Health Clinic, now a functioning 501(c)(3)" (Luft, 2008, p. 10). Most remarkable of all, over thirteen thousand volunteers have come to New Orleans under its auspices to do everything from tarping, gutting, and cleaning homes to bioremediation of soil contaminated by sewage and toxins. Informed by principles taken from the Black Panthers, Ella Baker, anarchism, and environmental justice, CG's motto is "Solidarity not Charity". Addressing environmental justice issues, specifically the need for wetland restoration to increase natural storm protection to protect New Orleans neighborhoods against future storm surges while promoting direct benefits to residents such as food acquisition and recreation opportunities has emerged as one of CG's present day primary concerns.

For this reason, they have started Common Ground Relief Wetlands Restoration program to proactively address the dangers faced by New Orleans and the Gulf Coast Region. They work to bring immediate attention to the ecological and political causes and effects of hurricanes and off-shored drilling with the goal of highlighting wetland restoration. CG also advocates for coastal restoration in areas imperiled by development and engineering projects that endanger wildlife and threaten the livelihood of coastal communities. Not least of all, CG educates the public about why they should join the restoration effort (Common Ground, 2005-2011). CG has succeeded in using their cultural capital because their approach is grounded in intersectionality. Coined in 1989 by legal theorist Kimberlé Crenshaw (1995, p. 378) and popularized by Patricia Hill Collins, intersectionality “denotes the various ways in which [social forces] interact to shape the multiple dimensions” of experience (Crenshaw 1995, p. 378). Collins observes that “as a heuristic device, intersectionality references the ability of social phenomena such as race, class, and gender to mutually construct one another” (1998, p. 205). Like *Common Ground*, *Make It Right Foundation* and *A Roof for My Country* as well as *Tourism Concern*, *The Asia Foundation*, *Vieques Women’s Alliance*, and the *Committee for the Rescue and Development of Vieques* – which will be discussed later – engage in intersectional practice that centers the voice and experience of putatively powerless or disposable. “This innovative power is one of the capacities exercised by the putatively powerless, even if the powerful might later claim to all such performances” (Stockemer, 2006, p. 139). In essence, this innovative power is intersectional practice. Political agency resides in intersectional practice that resists the biopolitics of disposability.

At the same time, it is tragic that both New Orleans and Haiti were struck by (un)natural disasters given their histories of colonialism which operates as discourse. It is hoped that the mistakes made in Katrina's aftermath, as the city continues to recover, will not be repeated in the Haiti in the aftermath of the devastating earthquake of 2010. Lessons learned from Katrina must become integral in the rebuilding of Haiti. This particularly applies to housing, clinics, schools, healthcare centers, hospitals, libraries, and other civic places. Yet, almost three years after the 2010 earthquake struck Haiti, Haiti is still struggling to exercise its navigational capital or maneuver through social institutions (Yosso, 2005, p. 80) to create a sustainable social housing plan for the homeless in Port-au-Prince. Instrumental in housing efforts to date have been grassroots organizations like the Chile-based *A Roof for My Country/Un techo para mi País* (UTPMP) and *J/P Haitian Relief Organization* (HRO). Actually, the 2010 earthquake in Haiti was the catalyst that accelerated UTPMP on the ground efforts given that 300,000 people died and 1.3 million were left homeless as a result of the January 12 earthquake.

Like the environment within which *Make It Right* worked in post-Katrina New Orleans, the precarious environment that UTPMP operated under while being one of the first grassroots organizations on the ground in Haiti was accentuated by the disaster due to the last decades in Haiti being defined by economic hardships, environmental degradation, violence, instability and de facto governments who have turned the country into the poorest one in the Hemisphere (Orelus, 2010). Nonetheless, within the first year of UTPMP was able to secure \$2 million funding from the Inter-American Development

Bank (IDB) to support their groundwork to erect “t-shelters” or temporary housing as reflected in Figure 14.

Figure 14. UTPMP T-Shelters Canaan Haiti



The 190-sq.-ft. t-shelters that were built by UTPMP were made of plywood walls and tin roofs. Beyond erecting temporary housing, UTPMP has also helped 826 families secure permanent housing within 2 years of the earthquake (Padgett and Desvarieux Canaan, 2010). Other successes include assisting over 130 Haitian men and women secure jobs in a pre-fabrication factory that UTPMP helped to establish; mobilizing 2,800 young volunteers with and employable skill set to work with the largest universities in the country. Because of their relief work in Haiti, UTPMP is now classified as a Haitian foundation. Currently UTPMP is focused on helping to contain a cholera epidemic that is gripping Haiti. The cholera epidemic is discussed at length in chapter 6. UTPMP attributes their success to functioning as a volunteer NGO that began in Latin America aimed at fighting poverty.

As reflected in UTPMP's groundwork in Haiti, NGOs along with the private sector, local institutions and the government, at multiple levels, have a vital role to play (UTPMP, 2010). Working in both humanitarianism and development, "NGOs play a major role in keeping acute human suffering on the global agenda. It is in their humanitarian and development actions that NGOs are most visible to the general public. They are also increasingly engaged in advocacy" (Christoplos, 2003, p. 98). Their model of intervention is to penetrate the most profound nucleus of society by bridging the gap between worlds apart: the world of the "haves" and the "have nots". Further, a core constituency of the volunteer NGO is youth who UTPMP strive to make protagonists in historical and developmental processes unfolding in Haiti. There is political agency in bridging as captured in the following passage by AnaLouise Keating (2009):

Bridges are thresholds to other realities, archetypal, primal symbols of shifting consciousness. They are passageways, conduits, and connectors that connote transition, crossing borders, and changing perspectives. Bridges span liminal (threshold) spaces between worlds, spaces I call *nepantla*, a Náhuatl word meaning *tierra entre medio*. Transformations occur in this in-between spaces, and unstable, unpredictable, precarious, always-in-transition space lacking clear boundaries. *Nepantla es tierra desconocida*, and living in this liminal zone means being in a constant state of displacement – an uncomfortable, even alarming feeling (p. 243).

Since UTPMP works to address this residential displacement post-disaster or crisis, the organization relies on a program of social intervention that represents three stages: 1) construction of transitional houses, 2) implementation of social inclusion programs that focus on the development of sustainable communities, and 3) incorporation of those living in acute poverty into social networks to overcome their social exclusion and

impoverishment. UTPMP's objectives in Haiti through 2015 include construction of 10,000 transitional houses, implementation of social inclusion programs in 15 Haitian communities, hiring 26% university students in the community to assist with building efforts, and opening an UTPMP office in northern Haiti (UTPMP, 2010). Though UTPMP has done a great deal to aid in providing housing for those homeless in Haiti, more still remains to be done as reflected in the photograph below (Figure 15) that was taken on July 2, 2012 by Ben Depp.

Figure 15. Port-au-Prince Tent Camp



Yet the Haitian government wants NGOs out of Haiti, fearing that they will become a substitute for the government, and tent-camp dwellers to rebuild their urban neighborhoods; however, many development experts advocate relocation: establishing viable communities in the underpopulated heartland for the thousands who lost their homes in the overpopulated capital. Any other option will continue to make Haiti reliant on international aid and in debt to foreigners (Padgett and Desvarieux and Canaan, 2010).

Though the Haitian government is not able to meet Haiti's post-earthquake challenges without significant outside intervention, conceivably NGOs will not be able to withdraw from Haiti until Haiti can reconcile the need for well-planned communities that supply almost all basic services including drinking water provision, sanitary sewer or septic, cooking fuels and electricity. The Haitian government must also be able to demonstrate to the outside world that they are capable of erecting permanent institutions such as schools and medical clinics without the input of NGOs like *Un techo para mi País*.

Where *Un techo para mi País* has fallen short, *J/P Haitian Relief Organization* (HRO), an NGO founded by Sean Penn in January 2010 has made significant contributions to post-disaster relief and reconstruction. Currently, Sean Penn serves the organization as Chief Executive Officer and Chairman of the Board. J/P HRO's main focus is on medical aid, protection, and re-location. Designated by the United Nations (UN) as the International Organization of Migration (IOM) designated Camp Management for internally displaced persons (IDP) in Port-au-Prince, J/P HRO is credited with establishing the first emergency re-location in the country. Although J/P HRO has been relatively successful in its relocation efforts, on July 2, 2012, they combined their efforts with an international campaign called "Under Tents" calling in order to better advocate for permanent housing solutions for the nearly 400,000 people who are still living in displacement camps more than two years after the earthquake. As part of the Under Tents campaign, Haiti's homeless are demanding that the government immediately halt all forced evictions until public or affordable housing is made available. They request that the Haitian Government, with the support of its allies and donor

governments in the U.S., Canada, and Europe move quickly to: (1) designate land for housing; (2) create a centralized government housing institution to coordinate and implement a social housing plan; and (3) solicit and allocate funding to realize this plan. This campaign will press for US Congressional and European Parliamentary action, raise international awareness about the crisis through news media, mobilize international grassroots pressure through a change.org petition, and build an international support movement especially with US and international housing rights organizations. Under Tents is a joint initiative of several Haitian grassroots groups, chief among them is *Force for Reflection and Action of Housing* (FRAAKA), and international allies who are committed to a solution for earthquake victims. The hundreds of thousands still living under shredded plastic tarps and tattered tents, as reflected in Figure 5, face high rates of gender-based and other violence, lack of access to clean water and toilets, and combat a surge in the cholera epidemic which is discussed more at length in Chapter 6. One in five is also at risk of imminent forced eviction. On average, it costs about \$1,300 for a Haitian to transition from a t-shelter or temporary shelter to a permanent housing solution. This \$1,300 figure covers the cost of rebuilding homes and neighborhood revitalization of clinics as well as other community services in addition to the cost of rubble and debris removal. As is evident, although camp and relocation management is a major focus of J/P HRO operation, the organization also prioritizes community redevelopment, emergency preparedness and response, and civil engineering as well as building schools and medical clinics.

The organization has removed 200,000 cubic meters of rubble, equating to about 25 dump trucks carting debris away from the city per day. They've set up two primary health care clinics, a woman's clinic, a mobile clinic, a 24/7 emergency room, and a cholera treatment isolation clinic, staffed entirely by Haitian doctors and nurses, that has cared for more than 183,000 injured and ailing people. To date, the J/PHRO medical staff has delivered more than 1,100 babies without a single maternal mortality. So, J/P HRO has supported nearly 400,000 people who were living in relief camps transition back into the neighborhoods. Although the number of displaced Haitians has dropped from 1.5 million to under 400,000, according to the International Organization of Migration, changing the look of a capital whose landscape was defined for many months by piles of rubble and fraying tent encampments is entirely another challenge.

While a few camps have benefited from aid programs, a grave underlying housing shortage means that the majority of those who left the camps have disappeared into the overcrowded homes of relatives or constructed precarious shacks in hillside slums. The recent clearing of Champs de Mars as shown in Figure 16 is one sign of how urgently Haiti's government and its image-conscious elite want to return public squares to normalcy (J/P HRO, 2012). Priscilla Phelps, a senior housing advisor to the Interim Haiti Recovery Commission headed by former U.S. President Bill Clinton and Haitian Prime Minister Jean-Max Bellerive, which is managing most of the \$10 billion reconstruction aid pledged by international donors, favors a new property-mapping system modeled after the one used in Southeast Asia after the catastrophic 2004 tsunami (Padgett and Desvarieux Canaan, 2010).

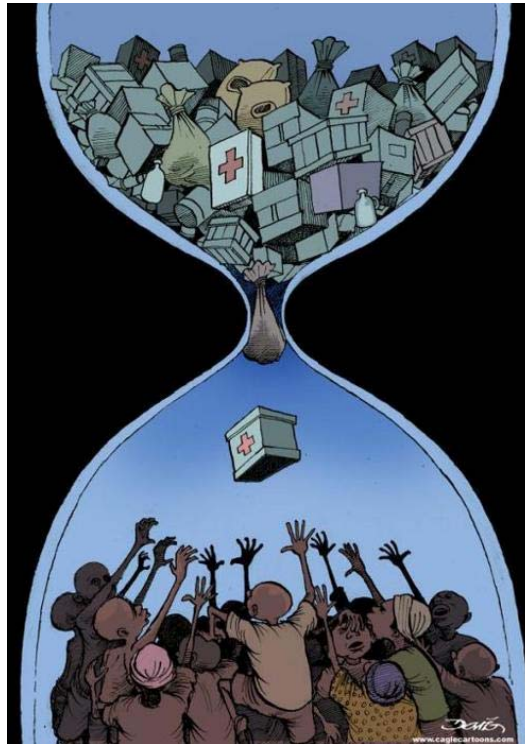
Figure 16. Champs de Mars Haiti



A \$78-million project dubbed "16/6" aims to repair 16 damaged neighborhoods and "decongest" six camps. A separate Canadian program paid to find homes for the residents of Champs de Mars. Under 16/6, camp dwellers and residents in damaged neighborhoods can choose between having their homes fixed and taking a one-year rental subsidy of \$500. About 10,000 families have chosen the subsidy. Those who found a cheaper home could pocket leftover funds. The 16/6 program has limited reach, with funds to help about 5% of camp dwellers. Many other people await relief in camps on vacant private lots. But as property owners lose patience with the squatters, some camp residents face eviction, at times by force. Tens of thousands of people have given up on crowded Port-au-Prince and headed north to chaparral-covered hillsides overlooking the Caribbean Sea. The result: huge, impromptu settlements lacking water or electricity that many fear could become the country's newest slum. The communities are a reminder of a wider battle over land in Haiti that usually breaks along class lines (Gaestel, 2012).

Accordingly, with only about 5% of camp dwellers being resettled into permanent housing built from international donations, what are donated funds being used for? It has been suggested that international donations have not reached the ground or the hands of those grassroots initiatives committed to spending every dollar on the Haitian people. This sentiment is also reflected in the cartoon below titled Haitian Relief by Dario Castillejos (Figure 17).

Figure 17. Haiti Relief by Dario Castillejos



As documented by *Common Dreams*, Bill Quigley and Amber Ramanauskas (2012):

The effort so far has not been based on a respectful partnership between Haitians and the international community. The actions of the donor countries and the NGOs and international agencies have not been transparent so that Haitians or others can track the money and see how it has been spent. Without transparency

and a respectful partnership the Haitian people cannot hold anyone accountable for what has happened in their country (n.p.).

Quigley and Ramanaukas' analysis further substantiate that the US government was the largest single recipient of earthquake money. The same holds true for donations by other countries. Only 1 percent of the money went to the Haitian government. The Haitian government was completely bypassed in the relief effort by the US and the international community. The Center for Economic and Policy Research, the expert source on this matter, analyzed all the 1490 contracts awarded by the US government January 2010 to April 2011 and found only 23 contracts went to Haitian companies. A large percentage of the money went to international aid agencies and NGOs. As a case in point, the American Red Cross received over \$486 million in donations for Haiti. Some money went to for profit companies like a Miami-based company that builds foam core houses. Therefore, a fair amount of the pledged money sits in wait since the international community decided it would not permit the Haiti government to direct the relief and recovery funds.

The international community has further insisted that two institutions be put in place to approve plans and spending for the reconstruction funds going to Haiti. They are the Interim Haiti Recovery Commission (IHRC) and the Haiti Reconstruction Fund (HRF). Nearly two and a half years after the quake, less than 1 percent of the \$412 million in US funds specifically allocated for infrastructure reconstruction activities in Haiti have been spent according to a November 2011 US Government Accountability Office (GAO) report (Quigley and Ramanaukas, 2012, n.p.). Hence, in absence of

predictable and sustainable systems, the basic core conflict that Haitian society must solve is one of continuing with old paradigms vs. acquiring new paradigms (Tippenhauer, 2010, p. 497) such that there has never been an effective application of a true social contract. It is this reality that further impacts Haiti's post-earthquake relief and reconstruction efforts. Should Haiti receive all of the relief and reconstruction funds promised, the general situation of one local area vs. another varies considerably in regards to the population's basic needs.

In the end, there is no common national objective and a general lack of capability for collective negotiations. All these are conditions that can explain the classification of Haiti as a failed state, hence, one where sustainability is in peril because of the inexistence of a leveled playing field and conscious leadership (Tippenhauer, 2010, p. 497). Sustainability was defined in the Brundtland Report of *Our Common Future* (World Council on Environment and Development) in 1987 as meeting the needs of the present without compromising the ability of future generations to meet their own needs (Venkataraman, 2009). As such, Haitian stakeholder participation must be prioritized in Haiti if sustainability is to be achieved. A first step is to develop new linkages, new methods of information dissemination and tools that enable the integration of and dialogue among multi-stakeholders (local, regional, and national) (Duxbury and Dickinson, 2007, p.327). Where Haiti's future is concerned, NGOs like Un techo para mi País and J/P Haitian Relief Organization, though modestly successful, cannot be solely relied upon to advance Haiti's humanitarian and development efforts.

The Haitian people, as stakeholders, must be able to hold the Haitian government accountable. Tippenhauer (2010, p. 503) suggests that “what Haiti needs is a change in its leadership paradigm from ‘people who acquire power for their personal and immediate interests’ to ‘people who use the motivation of personal interests to build projects that can bring lasting prosperity to their local village’.” The paradigm shifts that must accompany such a change in conscious leadership are many. Until Haiti accomplishes this, the oppressor remains within. Such a paradigm shift is possible in thinking with Anzaldúan theory, particularly *nepantla*, “a time for self-reflection, choice, and potential growth – what Anzaldua describes as opportunities to “see through” restrictive cultural and personal scripts . . . (Keating, 2006, p. 9).

Nepantla includes both radical dis-identification, and transformation and transformation. We dis-identify with existing beliefs, social structures, and models of identity; by so doing, we are able to transform these existing conditions (Keating, 2006, p. 9).

Thus, another post-Earthquake reality, that is neither neo-liberal nor neo-colonial, is possible in Haiti, given the willingness of the leadership to embrace a critically conscious voice and dis-identify with the existing political status quo.

Shifting to the massive, Sumatran-Andaman earthquake that occurred December 26, 2004 and measured 9.3 on the Richter scale and generated enormous tsunamis that inundated coastal areas of the Indian Ocean (Lay et al., 2005), who are the *nepantleras*? As in Haiti, the magnitude of this natural hazard and low disaster preparedness resulted in high death toll, large numbers of displaced persons, and extensive deconstruction and damage to infrastructure, settlements and livelihoods. Recovery has been estimated to

take 10 years and cost more than US\$10 billion (Burke, 2005). Environmental resources were also affected. Seawater contaminated drinking water in thousands of open wells, and salinized large tracts of farmland. Sewage spilled from flooded septic systems, and petroleum and chemical products were released from damaged production or storage sites posing a risk to human health and wildlife. Safe disposal of huge volumes of debris and rubble from collapsed structures is also a significant environmental challenge.

Furthermore, the tsunami damaged ecological assets such as coral reefs, mangroves and protected areas. Where these systems were largely intact, impacts on human ecosystems were generally not as great as those areas where reef and mangroves were destroyed by years of coastal development (UNEP, 2005). Subsequently, like in New Orleans and Haiti post-disaster relief and reconstruction has concentrated on long-term rehabilitation and rebuilding infrastructure. These initiatives include: repairing major infrastructure such as roads, ports and power plants; rebuilding community assets including schools, clinics and markets; and rehabilitating agriculture and fisheries. One of the highest reconstruction priorities remains providing permanent housing and related household needs or potable water, sanitation, and livelihoods (Kilby, 2007). Stepping up to meet these needs in the Asia-Pacific region are organizations like *The Asia Foundation* and *Tourism Concern*. Like MIR, CG, J/P HRO, The Asia Foundation is a non-profit, NGO committed to a peaceful, prosperous, just, and open Asia-Pacific region and supports programs in Asia that help improve governance and law, women's empowerment, economic reform and development, and international relations. Headquartered in San Francisco, with a network of eighteen offices throughout Asia and

an office in Washington, D.C., the Foundation collaborates with private and public partners to support leadership and institutional development, exchanges, and policy research. It is long-term recovery and reconstruction where the Foundation is making its most significant contributions primarily working with longstanding local partners to support activities in Indonesia, Sri Lanka, Thailand, and India to help rebuild communities and to ensure that local voices are contributing to the development of plans for the future.

As the hardest hit of the tsunami-affected areas, Aceh has received significant assistance from The Asia Foundation. As part of its long-term recovery efforts, the Foundation is also assisting Acehnese groups, including the Aceh Recovery Forum, the Aceh Council of Ulama, and particularly women's groups such as the True Partner of Indonesian Women (MISPI) and Fahmina to help them engage communities to provide input to government of every aspect of planning for recovery and reconstruction in Aceh. The Foundation has also taken a lead role in developing a set of Common Principles for Aceh Recovery and Reconstruction with other international NGOs and donor group, to ensure that local voices and perspectives are included in every phase of the rebuilding process. Millions of dollars have been raised and donated to support tsunami assistance in Indonesia. All eyes are on local and international organizations to ensure that donor contributions are spent wisely. To ensure transparency and accountability in the delivery of this support, the Foundation has provided assistance to Indonesia Corruption Watch, an organization with a strong track record of monitoring and curbing corruption in Indonesia's schools, elections, and judicial processes. The organization is deploying

thirty-five monitors in seven regions of Aceh and North Sumatra who, over two years, will monitor spending, initiate public campaigns against corruption, and scrutinize procurement and reconstruction activities (The Asia Foundation, 2005, n.p.). Beyond modeling a property-mapping system after the one used in Southeast Asia, Haiti and the Gulf Coast United States would benefit from a similar procurement and reconstruction monitor like Indonesia Corruption Watch.

The Asia Foundation also mobilizes its resources to address ongoing education needs. As in Indonesia, the post-tsunami response of *The Asia Foundation* is facilitating grants to micro-, small-, and medium-sized enterprises in the southern Sri Lankan districts of Galle, Matara, and Hambantotoa through existing business associations, chambers of commerce and industry to help local business owner rebuild their livelihoods. Further, the Foundation has initiated a project aimed at reducing conflict and building peace through strengthening local governance, a key step in building local resilience and resistance. This project currently support fifteen local government bodies to build their capacity to conduct participatory development planning, collect and manage financial resources, and improve local-level service delivery (The Asia Foundation, 2005, n.p.). This too is a teachable moment for Haiti. While Thailand was not the hardest hit country affect by the tsunami in terms of casualties or damage, it has received widespread media coverage because of international victims in resort areas of the Global South. Additionally, post-tsunami support in Thailand has focused on providing legal assistance for victims through free family law services for complex legal cases (The Asia Foundation, 2005, n.p.).

Tourism Concern, like *The Asia Foundation* operates as an NGO; however, its focus is on fighting exploitation in tourism. They are an independent, non-industry based, UK charity, with global membership and supporters. Tourism Concern envisions a world where tourism always benefits local people. A world free from exploitation in which all parties involved in tourism benefit equally and in which relationships between industry, tourists and host communities are based on trust and respect. Tourism can generate unintended consequences that are interpreted by the local community depending upon the community's cultural capital. It follows, that communities who have greater control within tourism development are able to direct development according to their priorities. Their approach is a rights-based approach to ensure that local communities must have the right to participate in the decision making about tourism development where they live.

Tourism Concern advocates three belief statements: (1) Tourism industry operators and governments must be accountable to the people whose land and cultures are being utilized for the benefit of the tourists and tourism industry operators; (2) Strategies must be prioritized to empower people to be better able to have a say in the development of their communities and country and the capacity to shape tourism development for equitable benefit; (3) Attention must be given to marginalized and vulnerable groups such as women, children, minorities, illegal workers and indigenous people working or affected by the tourism industry. In essence, *Tourism Concern* exists to safeguard against tourism as an occupying force. After consultation with destination stakeholders from South Asian countries affected by the tsunami and having specific accounts from researchers visiting Thailand and Sri Lanka, *Tourism Concern* makes the following

recommendations: (1) That affected governments, inter-governmental agencies, aid organizations, the tourism industry and civil society organizations urgently review exactly how reconstruction work relates to land issues and tourism development as many such issues predate the tsunami; (2) that local communities affected by the tsunami should have an effective voice in the reconstruction of their communities; (3) That national and local government, aid agencies and inter-governmental institutions ensure that all reconstruction is developed in consultation with a wide range of stakeholders, that it should have long-term sustainable objectives; (4) That national and local government, aid agencies, inter-governmental institutions and tourism developers should work to make an impact on long-term sustainable tourism development; (5) That permanent housing be an absolute priority for governments, aid agencies, and international banks and that such housing be appropriate for the climate and environment; (6) That all displaced people receive fair and equitable treatment that respects their human rights including property rights. (7) That national and local governments ensure that the balance between local and national coastal regulations to protect the environment and the needs of local livelihoods be appropriately negotiated and include full and independent environmental and social impact assessments; (8) That local and national governments ensure that laws puts into effect for coastal regulations be equally binding on tourism developers (Rice & Payne, 2005, n.p.).

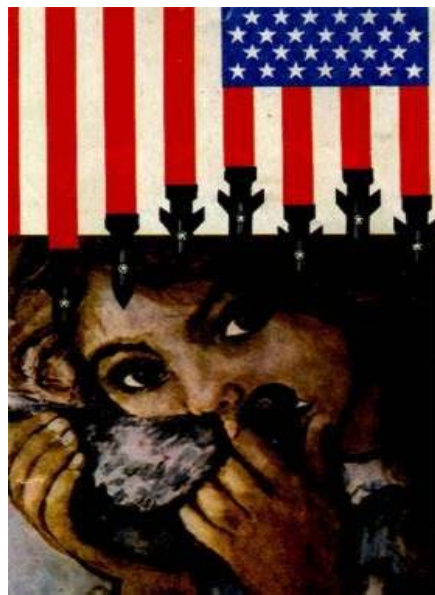
Not only is tourism exploitation a threat to local resiliency post-Katrina and post-tsunami, it also looms in the future of Vieques, Puerto Rico. Under the direction of Governor Luis Fortuno, Puerto Rico's government has recently pursued a neo-liberal

economic growth development program, “Puerto Rico Does It Better,” in an attempt to attract American business and tourists. These initiatives included a plan to dramatically simplify the tax code and sharply reduce corporate and individual tax rates by more than \$1 billion annually through 2018. Taking advantage of this initiative, the Ritz-Carlton and Four Seasons have opened high end hotels; the St. Regis will open a hotel in 2013 (Pike, 2013).

This is particularly problematic because for more than 60 years, the island of Vieques, Puerto Rico, served as a live munitions target range for the United States Navy while the Navy protected the U.S. Empire’s colonial relationship with Puerto Rico. Within this context, the colonial, racial and oppressive paradigms shielded most anti-military movements in Puerto Rico. The tragedy of a civilian, David Sanes, killed in Vieques by an errant 500-pound bomb destroyed this protective shield, bringing to light the social, economic, and environmental injustices and atrocities committed by the U.S. Navy. David Sane’s death increased the public awareness of how people’s lives, coastal lands, environment, and livelihood had been destroyed. Social action by solidarity and civil disobedience proved powerful in the anti-military struggle for achieving justice for the people of Vieques. Two organizations instrumental in the people’s struggle against the U.S. Navy to demilitarize the island have been the Vieques Women’s Alliance and the Committee to Rescue and Develop Vieques. Because of their efforts and those of other people of Vieques (*Viequenses*), the 2003-2015 demilitarization of Vieques commemorates the solidarity of people in their victory for environmental justice and world peace. While the U.S. government has spent \$53.5 million to clean-up 14,500

acres of Vieques, Puerto Rico polluted by the Navy, cleanup will likely continue through 2015 and beyond. As a consequence of the U.S. Navy's presence, generations of Viequenses suffer health problems.

Figure 18. Commemoration of U.S. Navy 17,783 Tons of Bombs Dropped on Vieques 1983-1998



Since 1947, the Navy used napalm, depleted uranium, carcinogens and other toxic substances at levels that violated the Pentagon's regulations (Murillo, 2001, p. 60). Elevated levels of several contaminants have impacted the water, food chain, and land. The USS Killen, a destroyer used as a target ship during nuclear tests in the Marshall Islands, lies sunk 150 yards from shore (Brown, 2003, n.p.) Between 1983 and 1998, the Navy dropped 17,783 tons of bombs on Vieques as reflected in Figure 18 (Berman Santana, 2002, p. 41). Studies conducted by the Puerto Rico Health Department found that compared to Puerto Rico, Vieques had a higher rate of cancer asthma, diabetes,

hypertension (Roman, 2003), infant mortality (Berman Santana, 2002). Some environmental experts consider that the U.S. Navy violated a number of federal laws, i.e., Endangered Species Act, the Clean Water Act, and The Clean Air Act resulting from seventy-eight municipalities being contaminated with arsenic, cyanide, lead, mercury, antimony, uranium, and other toxins associated with detonation ordinances. “These substance leach into the groundwater, and are carried by the prevailing easterly winds from the bombing range to the homes and schools, the seas where the fish are caught, the fruit trees, and the soil where tubers are grown” (Backiel, 2003, p. 8). Wilson frames the situation in Vieques as “environmental slavery” or “environmental servitude” as interchangeable conceptualizations to capture the experience of disadvantaged and vulnerable communities whom are differentially exposed to unhealthy environmental conditions and resource-poor settings suggesting that:

Vulnerable communities are used (directly or indirectly) to host social and environmental disamenities and externalities through planning, zoning, industrial siting, infrastructure and development inequities; while communities consisting of dominant racial and class populations benefit from the inequities, access to more amenities, and the ecological goods and services of host communities. There is an underdevelopment and/or destabilization in the growth, health, and quality of life of host communities overburdened by environmental and social externalities and spatially and socially bounded by limited access to environmental amenities (Wilson, 2009, p. 16).

Consequently, by the end of 1999, at least 55 Vieques cancer patients and landowners filed a \$109 million class-action suit against the U.S. Navy (Mullenneaux, 2000, p. 12). The U.S. Navy ceased bombing practice on Vieques, Puerto Rico in May 2003 that began with war maneuvers in 1941. This was not without hard fought efforts from multiple

actors (collaborators). Participating prominently in efforts to counter health injustices perpetrated by the U.S. Navy are two grassroots organizations, the *Committee to Rescue and Develop Vieques (Comité pro Rescate y Desarrollo de Vieques)* and the *Vieques Women's Alliance (Alianza de Mujeres de Vieques)*. These organizations, with legal representation from the John Arthur Eaves Law Offices of Jackson, Mississippi, have exhibited culturally relevant leadership in their efforts to seek compensation from the U.S. Navy for health problems ranging from vibroacoustic disease to elevated risks of asthma; cancer; diabetes; and heart diseases stemming from the Navy's 62-year occupation and use of the island for bombing practice.

In response to these charges that the Navy is responsible for pollution-causing disease in Vieques, the U.S. government commissioned the Agency for Toxic Substances and Disease Registry to conduct a series of studies of the island's air, soil, water and fish. Their findings concluded that toxin levels were safe. In attempts to absolve themselves of culpability, the U.S. Navy maintains that factors independent of military operations contribute to the poor health of the Viequenses noting that 73% of Viequenses live below the poverty line and face an unemployment rate of 14%. Some, among the Navy, even blame the health crisis in Vieques on genetics, diet, and contaminants blowing in on tradewinds from Africa. Moreover, one Navy spokesperson in Arlington, VA has stated, "While we are concerned about the health of the people of Vieques, our number one focus is not health problems, but munitions cleanup . . ." (Ginty, 2007, n.p). While the Navy prioritizes munitions cleanup over redressing the declining health of the Viequenses, the U.S. Environmental Protection Agency (EPA) has designated Vieques as

a Superfund site meaning that it is one of the most contaminated sites containing unexploded ordinances in a U.S. territory and one deserving of priority cleanup. The designation of Vieques, Puerto Rico by the EPA as Superfund site serves as another example of landscape operating as discourse. This ruling is no doubt supported by findings from two 2001 studies conducted by Puerto Rico's Ponce School of Medicine and the College of Physicians and Surgeons of Puerto Rico in conjunction with evidence revealed from years of lobbying done by the Committee to Rescue and Develop Vieques along with the Vieques Women's Alliance. The study conducted by the Ponce School of Medicine found that 98% of fisherman had heart abnormalities associated with vibroacoustic disease which is triggered by exposure to loud sound. The study conducted by the College of Physicians and Surgeons determined that 33% of Viequenses have unsafe levels of mercury in their bodies and 56% have unsafe levels of aluminum (Ginty, 2007, n.p.).

Without the efforts of anti-navy activists, affiliated with the *Committee to Rescue and Develop Vieques*, who lead the organized struggle for the recovery of Vieques land from the military, in 2009 Vieques would not be designated as a Superfund site. Although the Committee was *independista* and politically left, they worked hard to build bridges with more moderate, centrist constituencies by joining disparate elements of Vieques's working class and social establishment and seeking to utilize pragmatic legislative tactics like petitioning the local municipal assembly to evict the military (McCaffrey, 2002, pp. 126-127). Further, the Committee succeeded in mobilizing both

the local municipal government and the Puerto Rican resident commissioner in Washington, D.C. to take a stand on Vieques.

Among its first legislative strategies was to participate in a postcard campaign to President Clinton in 1993 calling for the closure of the Navy base. In order to increase their reach and focus attention on the specific acts of material harm the Navy was causing, the Committee eventually established an alliance with the *Vieques Fisherman's Rights Group* (*Grupo pro Derechos de los Pescadores Viequenses*). Not least of all, the Committee linked arms with the Vieques Cultural Center, a local organization run under the auspices of the Commonwealth's Institute for Puerto Rican Culture. Hence, the Committee's . . . "ability to tap into Viequenses' fierce sense of local identity suggested possible framework for organizing against the military presence" (McCaffrey, 2002, p. 132). In spite of these efforts and alliances, "in the spring of 1994, the Navy announced its intent to erect a \$9 million "Relocatable-Over-The-Horizon-Radar Installation" (ROTHR) in Vieques with the cooperation of the Puerto Rican police, the Puerto Rican National Guard, and the Puerto Rican Economic Development Administration (Fomento Económico)" (McCaffrey, 2002, p. 138). The ROTHR installation served as the impetus for Committee members to focus their energies on alerting the public to the potential health dangers of electromagnetic radiation. Additionally, the location of ROTHR with its transmitter in Vieques, its receiver in Lajas, Puerto Rico, and its Operation Control Center in Norfolk, Virginia facilitated the coming together of Viequensian and North American activists who could more effectively build opposition to the Navy by highlighting the threat of cancer (McCaffrey, 2002, p. 140). "The Committee thus

succeeded in building tentative bridges between the Viequense and North American populations” (McCaffrey, 2002, p. 145).

A consequence of this bridged alliance was the creation of the *Vieques Women’s Alliance* partnering with the American Cancer Society to track local cancer rates in Vieques (Ginty, 2007, n.p.). The Women’s Alliance surfaced a month after the April 19, 1999 death of David Sanes. David Sanes Rodriguez was a thirty-five-year-old civilian security guard who patrolled the Navy’s live-impact range on Vieques Island and bled to death from injuries suffered when two F-18 jets missed their target and dropped two five-hundred-pound bombs on a barbed-wire ringed complex (McCaffrey, 2002, p. 147). “Sane’s death focused the movement on the singular issue of the bombing, and gave rise to the movement’s slogan: *Ni una bomba más*, not one more bomb” (McCaffrey, 2002, p. 150). It was in this environment that the visibility of the Alliance as advocates for peace increased such that their campaign strategy became the distribution and wearing of white ribbons as a symbol that “Vieques wants peace” (McCaffrey, 2002, p. 162). Despite the movement’s initial coalescence around issues of cancer and health, two Alliance members, Dora Vargas and Amelia Mulero, came to realize that it would be harder to prove that the Navy caused cancer on the island while peace was a universally recognized basic human right. “The white-ribbon campaign reflected this strategy, and emerged as one of the group’s most successful contributions to the anti-navy movement” (McCaffrey, 2002, 163). Perhaps one of the Alliances’ most significant and lasting contributions to rid Vieques of the Navy was employing civil disobedience as women utilized their bodies to form human shields at various Navy encampments in Vieques

(McCaffrey, 2002, pp. 151-152, 166, 171-172). Undoubtedly, the bridge metaphor is a useful characterization of the local organizations like the *Committee to Rescue and Develop Vieques* and the *Vieques Women's Alliance* that formed in Vieques across the twentieth century to rid the island of the U.S. naval presence since:

Their leadership is progressive, distributive, and change driven and is used as a conduit for social justice They have a heightened sense of political responsibility and constantly engage the broader . . . community in dialogue about the social, political, and economic systems that surround them. In a nutshell, they are social activists as well as educators who seek to challenge and change the world through their praxis (Marshall and Oliva, 2006, pp. 67-68).

These local organizations embodied aspects of culturally relevant leadership in the way that they strategized and exercised critical consciousness or *conscientization* (Freire, 1998) as a form of popular education in which members of the community work to provide a new counternarrative to the traditional education that people receive in schools and in the media. For me, popular education empowers people, through their experiences, to begin the process of transforming society which is very different from traditional education.

I conclude this section with three points. First, *Make It Right Foundation* (MIR), *A Roof for My Country/Un techo para mi País*, *J/P Haitian Relief Organization* (HRO), *Common Ground* (CG), *Tourism Concern*, *The Asia Foundation*, *Vieques Women's Alliance*, and *Committee for the Rescue and Development of Vieques* are all nepantleras occupying nepantla. Second, despite the well-meaning intentions of the relief and reconstruction complex, the relief and reconstruction complex is inspired by models that are rooted in colonialism and neo-colonialism. In the North American context,

colonialism refers to several transhistorical processes: the original and repeated European colonization of the indigenous land that would become the United States, the establishment of colonies abroad, and the ongoing internal colonization of people of African descent on American soil (Carmichael and Hamilton, 1967). Specifically, we can better understand American treatment of the socially vulnerable in a disaster by using a broader framework of American governmental and nongovernmental policy toward the Global South that problematizes how the personal and collective tragedies encountered by the social actors as disasters/crises are still being experienced by those citizens who have been displaced from “home”. The question then becomes, how can these narratives (*testimonios*) be kept in full frontal view (Giroux, 2006).

Third, the American politics of relief and reconstruction and environmental demilitarization in its many forms usually has at its core a racial project of social control. This racial project is intentional. With the understanding that “disaster exacerbates pre-existing inequality” (Barnshaw, 2006, p. 49), it is clear that social vulnerability affects both the production of disaster and the experience of recovery. To disrupt this political project, I have attempted to offer perspective on how “border crossing identities can be viewed as subaltern (Spivak’s, 1995, notion), fluid, hybrid, complex, multiple, layered, and dynamic” (Diaz Soto, 2006, p. 112). Anzaldúa’s ‘Borderlands’, “a metaphorical borderland” (Aigner-Varoz, 2000, p. 49), “a vague and underdetermined place created by the emotional residue of an unnatural boundary” (Anzaldúa, 2007, p. 3), has been instrumental in revealing discourses of race, poverty, colonialism, landscape, displacement and housing. Applied here borderlands people, disaster survivors and

social actors, who inhabit Anzaldúa's work are the dispossessed or biopolitically disposable. The borderlands people are in fact caught in the paradox of being born in a space where they are not recognized as legitimate, or where they are categorized as different, and therefore constantly being asked to question their own existence and survival. Merely existing and barely surviving constitutes oppression of bodily integrity. Those who experience oppression but are not caught in the mode of acceptance and victimization, Anzaldúa affirms have the opportunity to tap into a level of awareness that will allow them to see, perceive, and understand their condition, but also to reconnect with the psychic realm and critical consciousness that ages of cultural oppression have concealed. This is the journey (violent shattering) that must be undertaken to move beyond the brutality of marginalization and oppression of disaster capitalism and the relief and reconstruction complex for the creation of a new mestiza consciousness.

CHAPTER IV

ANOTHER WORLD IS POSSIBLE: PEDAGOGIC STRATEGIES

FOR CONFRONTING EMPIRE

No one entity rules Empire but, rather, Empire depends upon the circulation of power through this complex play of nodes and networks.

—Matthew Brown (2008, p. 8)

Articulations of and Against Empire

Officially designating an event a “disaster” is consequential because it justifies mobilizing resources, such as public and humanitarian aid. The extent to which public resources and humanitarian aid is mobilized after a disaster or crisis is contingent upon how market forces assign cultural capital or value to impacted communities and align leadership to coordinate a multi-dimensional network of organizations and volunteers to dispense those resources and aid. As has been discussed in Chapter 3, the instructive example of Haiti serves as a poignant reminder of the stasis that paralyzes post-disaster relief and recovery when international agencies and NGOs are authorized to withhold 99 percent of post-earthquake relief and reconstruction funds.

Katrina is an exemplar for the world to remember how the catastrophic consequences born from lack of a central command structure to provide leadership and coordinate state and local efforts in flexible and collaborative ways can lead to death traps like that which the world witnessed become of the Superdome. Further, there was

the total communication failure among police and other government agencies, a total system collapse resulting in complete chaos and costly misunderstandings, a crisis situation with which no public agency was trained or prepared to cope with.

These realities underscore the predominant vision that guides disaster relief and reconstruction, a vision that is “familiar” and rooted in Empire. Such a vision utilizes disasters as tools to accelerate preexisting economic, social, and political inequities that ensure suffering of the most vulnerable ultimately fueling the biopolitics of disposability. In this way, disasters become what Arundhati Roy characterizes as avatars of Empire suggesting that “what Empire does is to further entrench and exacerbate already existing inequalities” (Roy, 2004, 28). With this understanding that disaster exacerbates pre-existing inequality, it is clear that Empire affects both the production of disaster and the experience of recovery.

Particularly as it relates to Hurricane Katrina and Haiti, languages of Empire are rooted in the global paradigm of colonialism, a macro discourse, that illuminates some of the micro dimensions of the post-hurricane recovery. In the North American context, colonialism refers to several transhistorical processes: the original and repeated European colonization of the indigenous land that would become the United States, the establishment of colonies abroad, and the ongoing internal colonization of people of African descent on American soil (Carmichael and Hamilton, 1967) that have normalized the existence of Empire. In order to change Empire’s outcome, the defining stories which breed a ‘politics of complicity’ must also change such that counter narratives of mass resistance movements come to frame public policy outcomes. These stories then become

the determinant of who benefits in post-disaster or crisis recovery environments.

According to Mohanty (2006, p. 8), “one way to address the politics of complicity is to analyze the languages of imperialism and Empire deployed explicitly by the US State”.

Seizing this opportunity to address the languages of imperialism is a way to utilize disaster or crisis as a lens for addressing social vulnerability and recovery as it relates to the ways in which recovery is stratified in both its delivery, and in how it is received according to the ascribed and achieved identity of the recipient.

As Haiti and Katrina exemplify, institutions of Empire cannot be solely relied upon to lead the way towards disaster relief, recovery, and reconstruction. Instead they must be replaced with “mass resistance movements, individual activists, journalists, artists, and film makers [who’ve] come together to strip Empire of its sheen” (Roy, 2004, p. 29). Though a new critique, David Korten and Vandana Shiva ground mass resistance movements in what they respectively refer to as partnership cultures and Earth Community as a counter-pedagogical strategy to Empire. Partnership cultures and Earth Communities employ pedagogical strategies that elevate subaltern voices deemed biopolitically disposable by privileging them in public policy decision making governing post-disaster resource allocation and “recovery” (Trujillo-Pagan, 2010, p. 35). This is a counter-neoliberal strategy that realigns who or what should assign rationality, efficiency, and success in an age of Empire while simultaneously disrupting existing racialized patriarchies and inequities of gender, class, and nation which can be considered the normal routine functioning of neoliberal capitalist economies embedded in Empire. As conceptualized by Arundhati Roy,

Our strategy should be not only to confront Empire, but to lay siege to it. To deprive it of oxygen. To shame it. To mock it. With our art, our music, our literature, our stubbornness, our joy, our brilliance, our sheer relentlessness – and our ability to tell our own stories. Stories that are different from the ones we’re being brainwashed to believe. The corporate revolution will collapse if we refuse to buy what they are selling – their ideas, their version of history, their ways, their weapons, their notion of inevitability. Remember this: We be many and they be few. They need us more than we need them. Another world is not only possible, she is on her way. On a quiet day, I can hear her breathing (Roy, 2003, p. 112).

From this vantage point, art, music, literature, stubbornness, joy, brilliance, and relentlessness embedded in the counterstory of the subaltern becomes the tool of mass resistance.

A second pedagogical strategy prioritizes exposing “the crucial “evidentiary record”, one useful for understanding complex social processes and unearthing the violent effects of policies often presented as remedies rather than part of the very problems that plague us” (Buras, 2010, p. 147). Excavating this evidentiary record is significant because it has the potential to reveal the taphonomy of disasters. Here, taphonomy is used to refer to “the complexity, the mix of accident and manipulation, the silences and erasures, the constraining structures, and the sudden ruptures that all go into the creation of history and into the formation of the ethnographic present” (Dawdy, 2006, p. 719). In the case of New Orleans, undoubtedly the evidentiary record of Hurricane Katrina and the levee breaks still permeate the visible archaeological record of the Lower Ninth Ward. The Lower Ninth is one of the poorer neighborhoods, where the greatest concentration of native New Orleanians live, are at, or below, sea level - and sinking still remains the epicenter of the highest percentage of blighted properties in New Orleans post-Katrina despite efforts of organizations like Make It Right. This stands in stark

contrast to the oldest, wealthiest, whiter, historic French Quarter neighborhood resting on high ground where most transplants reside. The difference in sea level height between the French Quarter, which survived Katrina relatively unscathed, and the black section of the Lower Ninth, is nine feet.

Empire Operationalized in New Orleans

The neighborhood stratification that exists in New Orleans between the Lower Ward and the French Quarters is the work of modern neoliberal market economies which Calhoun (2006) argues has as its goal to reproduce social inequalities and silence the subaltern narrative. Such a reinvention, as opposed to Empire, is capable of emphasizing “the gaps in relief disbursement, the ways in which and the reasons that people recovering from disaster do not get the assistance they need” (Luft, 2008, p. 34). An example of Empire’s annihilation of citizens’ reflects in a statement by Richard Baker, a New Orleans Republican congressman, in a presentation to a group of lobbyist on the silver lining within the Hurricane Katrina narrative stating, “We finally cleaned up public housing in New Orleans. We couldn’t do it, but God did” (Harwood, 2005). As has been established, God has nothing to do with the misery suffered from disasters or crises. Collaborating with Baker to underscore Empire’s annihilation of citizen’s rights was Joseph Canizaro, an influential New Orleans developer, who echoed, “I think we have some very big opportunities” (Rivlin, 2005). Such sentiment as Baker and Canizaro’s embodies a neoliberal elitist view of disasters or crises as opportunities to demolish public housing, displace countless people, lower taxes, bring in lower wage workers, and re-imagine and remake a city to serve the vested interest of a few.

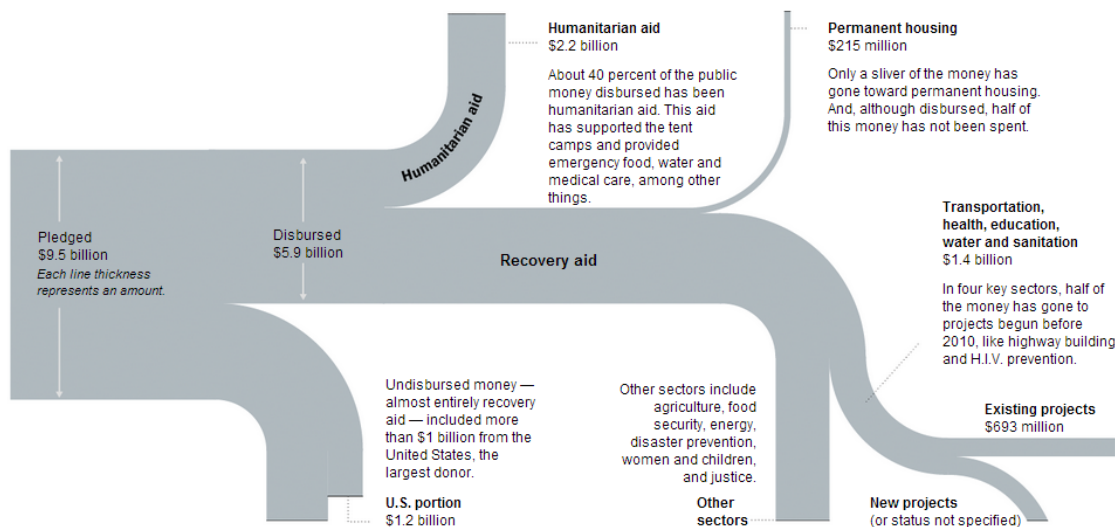
Seven years after Hurricane Katrina devastated the city of New Orleans and the Gulf Coast region of the United State, neoliberal elitism is still rearing its ugly head in parts of New Orleans that have been rebuilt in a changed and dramatic way . Public housing communities that served low-income residents were torn down creating a dearth in affordable housing instead of being rebuilt in a healthier and more energy efficient manner. Public schools have been privatized despite the willingness of public school administrators and teachers to return and resume operations. Consequently, drastic decreases in affordable housing units remain a key issue along with access to public school choice. The expression of this in New Orleans was to make a “nice “safe” city for the middle class and “whitening” it so that the city becomes even more of a theme park for tourists with money” (Buras, 2010, pp. 90-91), disaster tourism or the disneyfication of disaster. Apple (2005, p. 275) characterizes this reality as a variant of neoliberalism that compels schools to meet the needs expressed by capital such that large existing flows of money are diverted from the public sector to the private sector for the creation of profit making ventures that could be capitalized and transformed into stocks, derivatives, and leveraged securities. Specifically, Katrina provided the grand opportunity for Empire, political and economic elites, to deepen their neoliberal privatization agenda and change the racial and class demographic of the city by closing down thousands of units of badly needed but hardly damaged public housing units along with several historically successful public schools. The situation in Haiti, Vieques, and post-tsunami South Asia is no different. This is evidence of acceleration of the post-9/11 project of U.S. Empire building.

Empire Operationalized in Haiti

Pivoting to the situation in Haiti, Haiti remains shrouded, diminished, and stagnated by Empire's lofty ambitions yet to be realized since the 2010 earthquake, when the world aspired not only to repair Haiti but to remake it completely. This signals an acknowledgment that despite billions of dollars spent, and billions more allocated for Haiti but unspent, rebuilding has barely begun and 357,785 Haitians still languish in 496 tent camps. An analysis of the money trail is reflected in Figure 19 (Sontag, 2012, n.p.) and reveals that at least \$7.5 billion disbursed so far was used to clear rubble.

Figure 19. Where Did the Money Go?

Public donors pledged \$9.5 billion in relief and recovery aid to Haiti for 2010 to 2012. About \$5.9 billion had been disbursed by the end of September, though disbursed does not always mean spent. Figures do not include money – at least \$1.5 billion – spent by private groups.



Further, more than half of the money has gone to relief aid which leaves no permanent footprint since tents shred, emergency food and water gets consumed, short-term jobs expire; transitional shelters, clinics and schools are not built to last. Of the rest,

only a portion went to earthquake reconstruction strictly defined. Instead, recovery aid was devoted to other costly, but worthwhile projects, like highway building, H.I.V. prevention, and to new projects far outside the disaster zone, like an industrial park in the north and a teaching hospital in the central plateau. Meanwhile, only \$215 million of the total disbursement has been allocated to the most pressing need which is safe, permanent housing.

By comparison, an estimated minimum of \$1.2 billion has been consumed by short-term solutions like the tent camps, temporary shelters and cash grants that pay a year's rent. Like post-Katrina, New Orleans, housing and education reconstruction in Haiti remains unfinished and messy. With no detailed financial plan ordering reconstruction priorities, donors invested most heavily in the sectors that they had favored before the earthquake, transportation, health, education, water and sanitation, and half their financing for those areas went to projects begun before 2010. Moreover, while at least \$7.5 billion in official aid and private contributions have indeed been disbursed, disbursed does not necessarily mean spent. Rather, it means the money has been shifted from one bank account to another as projects have languished. This is the case for money allocated for housing.

With good will and money pouring into Haiti, international officials were determined to use the disaster as a catalyst for transforming not only the acutely impoverished country but the world's ineffectual strategies for helping it. Bill Clinton, the United Nations special envoy for Haiti, invoked the "build back better" mantra he had imported from his similar role in South Asia after the Boxer Day Tsunami (Sontag, 2012,

n.p.) and like the “Bring New Orleans Back” mantra that Mayor Ray Nagin invoked in New Orleans post-Katrina. Unfortunately, the international private sector that Clinton courted to design innovative tract housing for tracts of land never materialized.

One example of those aspirations is the abandoned site of a 2011 housing exposition held in Zoranje where colorful prototype homes now sit empty, padlocked, or plundered and used as toilets. Adjacent to the expo site in Zoranje is the only large new housing project completed so far. With \$8.3 million in financing, mostly from the Inter-American Development Bank, most of its 400 small pastel houses remained unoccupied for half a year, except in some cases by squatters, because the authorities could not figure out how to connect the complex to water. Eventually, the beneficiaries were allowed to move in anyway only to find that squatters had ripped out the electrical wiring, sinks and toilets. Adding insult to injury, some Zoranje homes lost their roofs during Tropical Storm Isaac. Additionally, the Zoranje complex has been without unreliable electricity since Superstorm Sandy.

The largest new settlement under construction takes the same exurban approach. Also questionable is the location of the American-subsidized new housing settlement in rural Caracol because of its distance from the disaster zone and the high cost of its one-bedroom homes which are being built by a Minnesota company on a site prepared by a Maryland firm for \$31,400 a house which includes site preparation, electrical wiring, and plumbing (Sontag, 2013, n.p.). This is reminiscent of Haliburton along with other multinational corporations and supranational financial institutions that sought to reshape real wages, population flows, labor, and civil rights beyond the reach of traditional levers

of democratic citizenship in post-tsunami South Asia (Whitehall and Johnson, 2011, p. 65). But current thinking among humanitarian officials values the approach of Earth democracy and instead support building small, simple one-family house in Port-au-Prince for \$6,000 in order to help more people. Although the Caracol houses were supposed to be occupied by December 2012, only 70 of 750 have been finished by the end of November because of severe weather and logistical problems. It seems that humanitarian financing for Haiti has been exhausted while the needs of the Haitian people remain acute. At the heart of this reality is Empire's inability to see disasters for the humanitarian crises that they really are and to only see them as opportunities for capital investments. It is crystal clear that Haiti needs long-term solutions to avert the current estimations of the 200,000 Haitians projected to still be living in tent camps by the fourth anniversary of the earthquake (Sontag, 2013, n.p.).

Given the failings of the relief and reconstruction complex that Empire has crafted on the ground in Haiti, the Haitian people should not bear any blame for wanting NGOs out of Haiti. Though the Haitian government is not able to meet Haiti's post-earthquake challenges without significant outside intervention, conceivably NGOs will not be able to withdraw from Haiti until Haiti can reconcile the need for well-planned communities that supply almost all basic services including drinking water provision, sanitary sewer or septic, cooking fuels and electricity. The Haitian government must also be able to demonstrate to the outside world that they are capable of erecting permanent institutions such as schools and medical clinics without the input of NGOs. Where Haiti's future is concerned, NGOs like *Un techo para mi país* and J/P Haitian Relief Organization, though

modestly successful, cannot be solely relied upon to advance Haiti's humanitarian and development efforts. The bottom line is that rehabilitation and reconstruction processes require a committed effort from multiple stakeholders. In the rehabilitation phase NGOs can play a critical role at the interface between people and the government by communicating a community's needs and priorities to the government.

The Role and Responsibility of NGOs in Minimizing Empire's Reach

As the Indian Ocean Tsunami, Katrina and Haiti illustrate, globalization, structural adjustment, and neoliberal policies have introduced a growing ambiguity into the roles that states, NGOs, and the private sector will assume in the face of ecological disasters and crises. Even now NGOs, the private sector, local institutions and the government, at multiple levels, have a role to play. Working in both humanitarianism and development,

NGOs play a major role in keeping acute human suffering on the global agenda. It is in their humanitarian and development actions that NGOs are most visible to the general public. They are also increasingly engaged in advocacy (Christoplos, 2003, p. 98).

NGOs are only as effective as the local institutions and programs that they partner with (Katoch, 2007, 160). Any other option will continue to make Haiti reliant on international aid and indebted to foreigners (Padgett, Desvarieux and Canaan, 2010). Roy (2012) characterizes this as the only way for Earth democracy to resist the "NGO-isation of Everything".

Not only does Empire craft a false dichotomy of disaster relief and reconstruction, rebuilding of nation, economy, landscape, culture and society post-disaster only to

reproduce dysfunctional, inharmonious regionally or globally disintegrated post-disaster spaces that continue to be defined by the neoliberal language and institutions of Empire, Empire does not safeguard populous megacities or coastal urban communities from future disasters or crises. This is further discussed in chapter 6. Still the unintended consequence of Empire's false dichotomy remains the many millions of these cities' residents, most of them poor and living in low-lying areas, who will still be ill-prepared to move from harm's way. Most significantly, Earth democracy shifts "the constellation of power from corporations to people" (Shiva, 2004, p. 9). In the context of Earth democracy, "recovery, therefore, may involve a rapid response in the material-social order is restored, or a break with the past as society attempts to resolve the material contradictions revealed by disaster" (Dawdy, 2006, p. 725). It follows then that Earth democracy accommodates protest. "The ability to engage in protest, to hold one's country (or countries) accountable is one of the most profound acts of citizenship" (Mohanty, 2004, p. 70). As shared in chapter 3, protest in favor of housing citizenship took the form of "direct-action reconstruction" through the successful efforts of social actors like Make it Right (MIR) in New Orleans. Hence, the direct-action reconstruction strategy deployed by MIR becomes a counter-hegemonic strategy that resists the reductionist depiction of Hurricane Katrina as simply a "meta-disaster" or "meta-crisis". Russil and Lavin argue (2011, pp. 22-23) that in the reality that is Katrina, conclusions about meta-crisis can be drawn. There is the conclusion drawn by many experiencing the disaster and its continuing effects: do not trust and do not depend on the government. The pedagogical moment resonates in the lyrics of rap artist Juvenile, who tells folks to

stop feeling sorry for themselves and to “get ya hustle on,” since “the government wasn’t going to do nothing for you anyway”. It is also arguably encouraged by Naomi Klein’s admiration of “direct-action reconstruction,” in which locals are admonished to rebuild New Orleans without reliance upon government aid. Second, Russil & Lavin (2011, p. 23) suggest that consumers of media must vigilantly critique non-news media flows that “organize state-media relationships through a narrow vision of crisis”. In other words, citizens of the world should not allow Empire to utilize the Weather Channel as an illustration, which caters to neoliberal programming and marketing, to teach about disaster preparation, mitigation, and response. This “familiar” strategy is neoliberalism at work which “gives people *one* option of who they are: They are *consumers*” (Buras, 2010, p. 91). It is the responsibility critical educators and jurisdiction of public education, a topic which will be explored in chapter 7, to teach against Empire and its neoliberal confluences by offering people an opportunity to be producers of their own knowledge economy and by educating for conscientization (critical consciousness) or “the ability to analyze, problematize (pose questions), and affect the sociopolitical, economic, and cultural realities that shape our lives (Leistyna, 2004, p. 17).

There is much work to be done around reconceptualizing governmental omission in the context of disasters like Katrina as state crimes reflecting the reality that many social audiences define the various state omissions as negligent. Presently, most of the academic and popular literature addresses environmental and social implications while ignoring state criminality that occurs prior to, during, and after storms (Faust and Kauzlarich, 2008, p. 99). This is not inconceivable given the reality that seven scientists

and technicians who analyzed seismic activity ahead of a devastating earthquake that struck the Italian town of L'Aquila on April 6, 2009 were convicted of manslaughter and sentenced to 6 years in prison in a precedent-setting case. "The four scientists, two engineers, and a government official were accused of having carried out only a superficial analysis of the seismic risk and providing false reassurances to the public ahead of the quake, which killed 309 people" (Cartlidge, 2012, p. 451). This is developing and advancing an educational philosophy that not only confronts, mocks, and deprives Empire of oxygen, it is pedagogy that "resists the 'capitalization' of subjectivity" (McLaren et al., 2004, p. 139) and truly constitutes disaster education reflective of revolutionary critical pedagogy.

CHAPTER V

MEDIATED REPRESENTATIONS OF DISASTER OR CRISIS THROUGH A CRITICAL PLACE-BASED LENS

The earth is telling us something about our conduct of living, as well as about our abuse of this covenant we live upon. Not one of us can believe himself or herself untouched by these messages, no matter where she or he lives, no matter under what illusions of safety or uninvolvedness we may pretend to hide. Each one of us has some power that can be used, somewhere, somehow, to help save our earth.

—Audre Lorde (1991, pp. 81-82)

There is nothing “natural” about a disaster or crisis. Nature provides the hazards – earthquakes, volcanic eruptions, floods and so on – but humans help create the disaster or crisis. We cannot prevent a tsunami, hurricane, or earthquake but we can prevent it from becoming a disaster or crisis. Once we understand that there is a difference between “natural hazard” and “disaster” or “crisis”, we then understand that disasters or crises are mostly human-induced, and increasingly exacerbated by human activities such as deforestation, rapid urbanization, environmental degradation and climate change. A critical first step is for mass media to reject use of certain terminologies and to reframe mediated messages about disasters that do not reproduce oppressive ideologies, reinforce privileged positions of authority, and institutionalize what Bates & Ahmed (2007, p. 189) term disaster pornography, Tierney et al. (2006) calls “disaster myth”, and Klinenberg (2002, 1999) refers to as “political economy of disaster vulnerability”. This critical first step will help change the narrative with which public policy experts, elected

official's opinion leaders and the general public speak about when they talk of disasters or crises. By doing so disaster pornography or media framing that appeals to thanatotic (death/destruction) drives is minimized or averted altogether and a culture of disaster prevention that privileges various forms of capital – natural, human, social, and built is co-created emerges. Miles & Morse (2007, p.265) address the capital emphasis of recovery strategies discussed in media coverage of Katrina, as a case in point, by identifying select keywords associated with the four dimensions of capital as highlighted in Table 5:

Table 5. Capital Keywords

Capital	Keywords
Built	electricity, road(s), infrastructure, construction, real-estate, no-bid contracts
Human	race, class, poverty, income, education
Natural	wetland(s), delta, barrier island, sediment
Social	social, community, civic, church

Changing the narrative about disasters or crisis is imperative because “typically, narratives of crisis result from a ritualistic process dominated by government and media professions, and these rituals distribute assumptions regarding how crises emerge, how society responds, and how reoccurrence is prevented” (Russill and Lavin, 2011, p. 4). This results in little more than seeing or critiquing disaster-as-spectacle or crisis-as-spectacle and the missed opportunity to interrogate the intersections of race, class, and place (geographies) embedded in disasters or crises and to examine their multidimensional, conflictual, and contradictory character.

More specifically, disaster pornography emphasizes the decontextualized images of disaster, displays the body of the other as an object, displays objectifying images without providing additional literary, artistic, political, or scientific value in the disaster coverage, and when habitualized, can have the same kinds of negative effects as sexual pornography such that viewers are encouraged to see themselves as safe and powerful (Bates & Ahmed, 2007, p. 191). Thus, the difficulty with images post-disaster coverage is not that they were shown, but that the images were shown as if they told the complete story. This type of coverage implicates media and their messaging as discourse that inaccurately frames those impacted by disaster. The image of Milvertha Hicks (Figure 5) bares witness to the mediated messaging in Katrina coverage such that:

The images took on additional significance in that they displaced the news function of televised media. To use the terms of the theory of uses and gratifications, the entertainment function of the coverage – i.e., the disaster pornography – overwhelmed the surveillance function – i.e. meaningful information about the hurricane. In the best cases, images were supplemented with information by voiceovers. More commonly, the images of disaster pornography replaced information entirely (Bates & Ahmed, 2007, p.194).

Consequently, in the case of Katrina coverage, thanatotic mediated undertones greatly dictated the extent to which key Bush officials, namely, then Director of the Federal Emergency Management Agency (FEMA) Michael Brown and Secretary of Defense Donald Rumsfeld both managed and spoke about the crisis of Katrina. This was most evident in Michael Brown's congressional testimony that offered an examination of his account of what went wrong and the reality that neither Brown nor Rumsfeld conceptualized Katrina as a crisis of the magnitude as those who experienced it on the

ground. This benign and malign neglect displayed by Brown and Rumsfeld is not surprising given the institutional environment within which public decision-makers operate (Kasinitz, 2006).

Post-Katrina, one of the most prominent consequences of the benign and malign neglect that was operationalized during this time was ineptness of the Red Cross. Missing in action for at least two days in the hardest hit areas on the Gulf Coast, the Red Cross did not operate like America's largest disaster-relief charity. The charity's response was handicapped further by a decision made in the 1990s not to maintain shelters in flood plains, meaning that no such facilities were available to meet the needs of the tens of thousands of people Katrina stranded in New Orleans. FEMA director Brown's isolation (physical and administrative), his overconfidence, and his failure to widen his decision circle are indicative of groupthink, or lack of effective crisis communication, that occurred during Katrina (Garnett & Kouzmin 2007, p. 174). It is now known that Brown's and Rumsfeld's public articulation of the Katrina crisis in the media helped to organize the federal, state, and local response on the ground that generated the perception of Katrina, not as that of a crisis, but instead as that which Russil and Lavin (2011, p. 4) term a "meta-crisis". Russil and Lavin's "meta-crisis" thesis compel the question – was the reflective potential of "meta-crisis" exhibited at the macro- and meso-levels in response to Katrina also influential in the response to disasters or crises like Vieques, the Boxer Day Tsunami, and the Haiti Earthquake? What is known for sure as a consequence of Hurricane Katrina is that:

The use of media to produce “consensual or integrative forms of ritual news coverage,” or even a “sphere of consensus,” is now a formal and institutionalized aspect of crisis response – a tool of governments to protect their legitimacy when their constituents are suffering (Russill and Lavin, 2011, p. 19).

When images implicitly or explicitly substitute for stories and emotive pictures replace useful information, the interest in the image over the information inevitably leads to an imbalance in the coverage. Consequently, viewers watch disaster media coverage for entertainment purposes in as much as they watch it for information purposes, become seduced by the thanatotic potential of media content, and fall victim to voyeurism i.e. the flooded streets, floating corpses, and devastated home and businesses promoting an interest in death and destruction as witnessed during Katrina. This was exhibited by major news networks like CNN (Blitz et al., 2005).

Again Federal Emergency Management Agency (FEMA) director Michael Brown is implicated here with the thanatotic statement he made to several news media outlets when he declared, “We’re seeing people that we didn’t know exist” (Gibbs, 2005, 11). Indeed, the *modus operandi* of entertainment is operationalized here – abstraction, decontextualization, implosion, and simulation such that entertainment corporations like the Weather Channel, CNN, MSNBC, CNBC, Fox News, “organizations and other agents seek to detach images from social life and transform reality into a *mélange* of signs and iconic representation” (Fox Gotham, 2007, p. 82). Arguably this type of dehumanizing media coverage denies the dignity of the survivors by their portrayal as voiceless victims. The more viewers witness the ‘spectacularization’ of images such as these, the more they are trapped inside a world that fuels their thanatotic drives since:

This process of ‘spectacularization’ is not neutral but reflects the relentless pursuit of corporate profit as ruled by the dictates of capitalist competition, commodification, and the rationalization of production and consumption (Fox Gotham, 2007, p. 82).

In the aftermath of disasters on the scale of Katrina, what remains is the ‘Disneyfication’ of urban space inclusive of “the privatization of public spaces and the latest attempts by urban leaders to provide a package of shopping, dining and entertainment with a themed and controlled environment” (Fox Gotham, 2007, 83).

This is particularly relevant since

unlike other cities of the United States, New Orleans’s tourism and entertainment industry [has] sold Black people’s culture as part of the milieu of ethnicities in the city. The education of many of New Orleans’s Black children was neglected, whereas the city annually served as a playground for more than 10 million tourists from all parts of the globe (Morris, 2008, p. 474).

Still, the spectacle of Katrina is instructive because it provides insight into the intersections of race, class, and geography in US cities and the ways in which these inequalities became politicized and focal points of media debate and contention. Though, “the racism during the events surrounding Hurricane Katrina in New Orleans was not necessarily that of an individual; it was a historical, social, political, and economic system that resulted in disparities and disadvantages” (Morris, 2008, p. 478). As powell et al. (2006) further assert in their discussion of race and racism during Hurricane Katrina, “Racism, however, is as much a product of systems and institutions as it is a manifestation of individual behavior. Indeed, structural arrangements produce and

reproduce racial outcomes and can reinforce racial attitudes” (p. 65). This is evident in the media coverage that portrayed blacks as criminals, thieves, and looters.

The discourse – or lack thereof – around the inextricableness of race and social class in New Orleans and throughout the Gulf Coast requires that critical race discourses become increasingly a part of the scholarly community’s repertoire of frameworks for researching the consequences of Hurricane Katrina for the social and educational experiences of Black people (Morris, 2008, p. 478).

Nonetheless, media coverage and political commentary on Hurricane Katrina and its aftermath reveal the multidimensional, conflictual, and contradictory logics of disaster-as-spectacle or crisis-as-spectacle. First, Katrina provided an explosive class and race spectacle in which the enduring problems of social inequality, disinvestment and poverty were made visible and dramatized before a global audience. Second, rather than focus on the mammoth problem of human suffering, early mainstream media coverage of New Orleans obsessed on racial images and mostly unverified stories of rampant violence, rape, crime, and looting supposedly perpetuated by African Americans. Third, differential treatment of black and white New Orleanians by the media played into a larger process of stigmatization that focused public attention on residents themselves as the cause of the problems they were forced to endure (Scanlon, 2007).

In short, Katrina put on display the growing impoverishment of poor African Americans living in US cities and revealed that racial and class division in the USA are deeply rooted and consequential. Media coverage and political commentary on Katrina transformed race and class divisions into spectacles permeated with images of an on-the-street ‘reality’ of storm victims were presented through the mainstream media as responsible for their own plight (Fox Gotham, 2007, p. 93).

Therefore, to diminish disaster pornography in coverage, it should be linked to principles of social justice with disaster planning, risk reduction, and education. Based on this understanding, if we acknowledge media's role in forming a global civil society and in communicating messages about social justice, we as consumers of mediated images and message must question how disaster is framed, how information about disaster planning is disseminated, and how the public is educated to participate in disaster risk reduction.

Unquestionably, given the range and amount of media people interact with and consume with respect to popular culture, "the media and political spectacle in which educators work must be understood in terms that acknowledge the deep and substantial challenges to teaching students that are bombarded with distorting and disjointed images, incorrect facts, and discredited ideas" (Cooley, 2010, p.582). As it stands:

From Disney to Barbie to MySpace, youth today navigate a range of popular culture and media. The reality that children and youth interact with a vast amount of media - books, toys, video games, advertisements, etc. – requires teachers to become more aware of *and* fluent with the diverse popular cultural materials young people read, view, and consume (Marshall & Sensoy, 2011, p. 1).

Though no singular solution exists for educators to erase the media spectacle associated with disaster or crisis coverage, a co-created culture of disaster prevention accommodating classroom discussions that drive democracy and values place-based education is possible. In essence, place-based education, educational pedagogy that centralizes a person's experience of the world, improving the quality of life for all people and communities, and foregrounding the study of place as political praxis for social transformation (Gruenewald, 2003, p. 7) informs how disasters or crises should be

spoken and taught about. Notably, placed-based education offers a way to teach against what Tierney et al. (2006, p. 58) call disaster myth, the manner in which popular culture both reflects and perpetuates erroneous beliefs about disaster-related behavior and Garnett and Kouzmin (2007, p. 174) call groupthink - an organizational culture that promotes team loyalty over independence, short deadlines and high stress, the influence of prior failures, and group willingness and even eagerness to accept high-risk, even reckless courses of action, ignoring cautionary information and possible moral complications. Indeed, New Orleans's uniqueness in the experiences of multiethnic people in the South and the United States raises issues of race, social class, and schooling that fueled the media production of disaster myth and groupthink.

Given the prevalence and frequency of ecological disasters and natural hazards, people need to be taught not to shun, fear, or ignore such issues. This provides an opening or opportunity for reevaluating the goals and curriculum commitments of environmental education. As such discussing the context and geography of four natural disasters: the Boxer Day Tsunami (South Asia), Hurricane Katrina (New Orleans), Port-au-Prince Earthquake (Haiti), and the twentieth century U.S. Naval occupation of Vieques, Puerto Rico in the classroom accommodates authentic questions about public problems and the public policies required to address them. Some contextual contemporary questions that students might grapple with are: Why are disasters happening? How can we prevent disasters? Who is responsible? "Discussing controversies about the nature of the public good and how to achieve it is essential if we are to educate for democracy" (Hess, 2011, p. 69).

Therefore, through an investigation of these disasters, I suggest a need for the development of a critical environmental education that takes up these disaster-related questions and others while at the same time interrogates the intersections of race, class and geography in fostering ecological literacy (Orr, 1992; Smith & Williams, 1999; Stone, Barlow, & Capra, 2005; Thomashow, 1996) about them. The relevancy for this critical environmental education is grounded in the National Science Education Standards that values science in personal and social perspectives (National Committee on Science Education Standards and Assessment, 1996, p. 193). Because of these standards, 9th-12th graders are expected to develop an understanding of organizing principles such as personal and community health, population growth, natural resources, environmental quality, natural and human-induced hazards, as well as science and technology in local, national, and global challenges. Thus, the organizing principles for this standard form a set of conceptual organizers, fundamental understandings, and implied democratic actions for most contemporary issues. The organizing principles apply to local as well as global phenomena and represent challenges that occur on scales that vary from quite short to very long. This becomes an entry point for environmental educators to utilize mediated portrayals of disaster in popular culture to engage conversations with youth that drive democracy and engender empathy (Boler, 1997), teach about the biopolitics of disposability or notion that “the poor, especially people of color, not only have to fend for themselves in the face of life’s tragedies but are also supposed to do it without being seen by the dominant society” (Giroux, 2006, p. 175) and teach against the phenomenon that journalist Bill Bishop (2008) has labeled “the big sort.” The “big sort” describes the

tendency of people to increasingly talk primarily with “people who already share their views, access media that reinforce what they already believe, and ruminate on what they hear within an echo chamber of like-mindedness” (Hess, 2011, p. 70). Mediated messages are implicated in “the big sort” since media play a significant role in framing public perception and public discourse of disasters such that the disasters themselves becomes a form of political discourse as media outlets choose how to present information about them. Button (2002) describes such choices as media’s “attempt to control the social production of meaning . . . to define reality in accordance with a favored political agenda” (p. 146). Lester and Ross (2003) trace the problem of media framing at the individual level. Journalists employ incomplete and unfair frames and stereotypes because they are people, and people often find it easier and more comfortable *not* to confront their ingrained stereotypes and prejudices. If media framing is considered as “products of culture” (Button, 2002, p. 147), the *othering* of those affected by disaster constitutes the perpetuation of hegemonic power. Moreover, it is hoped that in addition to countering this pornographic media narrative, such a critical environmental education evolves a consciousness in which people value and work on behalf of environmental justice, environmental sustainability, and environmental citizenship, a goal of which is denaturalizing disasters as that which “naturally kills the abject” (Rodríguez, 2007, p. 150). From this vantage point, environmental education acts “as means to challenge the rigid patterns of thinking that perpetuate injustice and instead encourage flexible analytic skills, which include the ability to self-reflexively evaluate the complex relations of power and emotion” (Boler, 1997, p. 255).

Specifically, poetry, the meaning-making of poets is a tool for unlearning or moving into-through-beyond (Corrigan & Davies, 2004) the pornographic mediated messages about disasters since poets read the world, listen to their world, and speak back when necessary. In this sense, “poetry forms the quality of light within which we predicate our hopes and dreams toward survival and change, first made into language, then into idea, then into more tangible action.” (Olson, 1998, p. 453) Audre Lorde communicates the political agency of poetry best when she writes:

Poetry is not only dream and visions; it is the skeleton architecture of our lives. It lays the foundation for a future of change, a bridge across our fears of what has never been before (Lorde, 1984, p. 38).

In this way, poetry becomes a way of creating accountability for forms of democratic violence (de Waal 2006) that we are not even allowed to account for in the dominant discourse. This is the transformative work of poetry that when used as a vehicle to articulate critical place-based pedagogies inhabited by ordinary folk can facilitate

experiential learning, contextual learning, problem-based learning, constructivism, outdoor education, indigenous education, environmental and ecological education, bioregional education, democratic education, multicultural education, community-based education, critical pedagogy itself, as well other approaches that are concerned with context and the value of learning from and nurturing specific places, communities, or regions (Gruenewald, 2003, p. 3).

“I speak here of poetry as revelatory distillation of experience” (Lorde, 1984, p. 37).

Certainly Lorde’s place-based perspective is relevant since she survived the 1989 Caribbean Hurricane Season when faced with Hurricane Hugo. Her words are instructive and perhaps more relevant now:

We must also learn to live in such a way that the effects of these natural events are minimized, and the aftereffects of such occurrences are absorbed by realistic preplanning that includes all members of our society. When the next hurricane season comes, will there still be unfortunate people displaced . . . still living under blue temporary tarpaulins that are decaying from overlong use in our tropical sun? . . . If we do not learn the lessons of Hurricane Hugo, we are doomed to repeat them. Because Hugo will not be the last hurricane in this area (Lorde, 1991, p. 81).

Lorde's sentiment underscores David Godschalk's perspective on Hurricane Katrina:

"Acting beforehand to mitigate natural hazard impacts is much more effective than picking up the pieces afterwards" (Godschalk, 2005, p. 58). Understanding the distributional impacts of natural hazards across multiple income groups in a given city or community is critical for mitigation from natural hazards. The ability to respond to and cope with the impacts of disaster or crises is a function of socio-economic as well as biophysical factors. Table 6 (Masozera et al. 2007, p. 301) summarizes the social and economic characteristics that influence human vulnerability at both individual and community levels. Biophysical and socio-economic components of social vulnerability offer a framework of components to consider when qualifying disaster preparation. They are also components worthy of consideration when evaluating ways to reduce one disaster risk reduction footprint that was discussed in chapter 1.

Table 6. Population Characteristics Influencing Social Vulnerability

Population characteristics	Description	Increases (+) or decreases (-) social vulnerability
Socio-economic status (income, political power, prestige)	Wealth enables individuals to absorb and recover from losses more quickly using insurance, social safety nets, and entitlement programs.	High status (+/-)
Gender	Women often have more difficult time during recovery than men because of lower wages and family care responsibilities.	Low income or status (+)
Race and ethnicity	These factors pose language and cultural barriers and affect access to post-disaster funding and occupation of high-hazard areas.	Non-white (+) Non-Anglo (+)
Age	Extremes of age affect the movement out of harm's way. The elderly may have mobility constraints or concerns that increase the burden of care and lack of resilience.	Elderly (+) Children (+)
Residential property	The value, quality, and density of residential construction affect potential losses and recovery. Expensive homes on the coast are costly to replace; mobile homes are easily destroyed and less resilient to hazards.	Mobile homes (+)
Renters	People rent because they are transients, do not have the financial resources for homeownership. They often lack access to information about financial aid during recovery. In extreme cases, renters lack sufficient shelter options when lodging becomes uninhabitable or too costly to afford.	Renters (+)
Education	Education is linked to socio-economic status in that higher educational attainment affects lifetime earnings, and limited education constrains the ability to understand warning information and access recovery information.	Little education (+) Highly educated (-)
Health status	The public health literature shows that people with preexisting illnesses may be at risk for death/illness/injury in disaster setting. Additionally lack of access to adequate health or health insurance would increase vulnerability to natural disasters.	Major health problems (+) Minor or no health problems (-)
Social dependence	People who are totally dependent on social services for survival are already economically and social marginalized and require additional support in the post-disaster period.	High dependence (+) Low dependence (-)
Special-needs populations	Special-needs populations (infirm, institutionalized, transient, and homeless) are difficult to identify, let alone measure and monitor. Yet it is this segment of society that invariably is left out of recovery efforts, largely because of this invisibility in communities.	Large number of special needs (+) Small number of special needs (-)

Watts and Bohle (1993), Blaikie et al. (1994), Kelly and Adger (2000) argue that people's vulnerability to natural hazards is determined not so much by the event itself, but rather is a function of social conditions and historical circumstances. As a result, protection from the social forces that create inequitable exposure to risk becomes just as important, if not more so, than the protection from natural hazards (Hewitt, 1983). Since a lack of access to economic or human resources or knowledge can limit the ability of some socio-economic groups to respond adequately to a disaster or crisis, then disaster/crisis risk reduction is better conceptualized by viewing people as infrastructure as opposed to victim.

One way to inform this discussion, as has already been stated, is through place-based education that incorporates disaster planning, mitigation, and recovery in the K-12 education framework. Drawing from Ninth Ward recovery and reconstruction post-Katrina, Breunlin and Regis (2006) suggest that one route towards these discussions is to consider how the media discursively used the term "refugee" to speak about displaced residents and how displaced residents resisted the reference as another example of displacement operating as discourse. This is a discourse that constitutes the voice of the subaltern mainstream – socioeconomic groups who have historically experienced low socio-economic status like racial and ethnic minorities, woman-headed households, the elderly, the unemployed, the illiterate or uneducated, and the ill or handicapped, as well as English speakers of other languages. The subaltern voice (Spivak, 1995) is best equipped to speak to how top-down policies disproportionately impact marginalized

communities and can serve as a vehicle through which historically marginalized communities are able “return the gaze” or “talk back”:

bell hooks (1992), discussing a similar operation of the white gaze, notes that whites still operate on the assumption that blacks lack the capacity to look back because during slavery blacks could be punished for “looking back” (Shome, 1999, p. 107).

Some successful examples of the subaltern voice speaking; “returning the gaze” or “talking back” in New Orleans post-Katrina are the Advancement Project and The Louisiana Road Home program (Breunlin & Regis, 2006, p. 245). Such examples accommodate collective memory and a sense of place or “the connection between people and the places they repetitively use, in which they dwell, in which their memories are made, and to which they ascribe a unique feeling” (Morgan et al., 2006, p. 706). These examples also accommodate the strategic use of “language as a communal resource.” (Olson, 1997; 1998)

In another example, Renée Watson, a poet and teacher, uses the art form of spoken word poetry to encourage her high school students to examine disasters with empathy and a critical eye by interrogating the question: how does race and class, or raceclass as defined by Zeus Leonardo (2010) affect disaster aftermath and recovery? In response to the question posed to her own students, she offers the following verse:

This is an oral history lesson
Just in case the textbooks neglect the truth:
Natural disaster holocausts
are destroying
the poor.
Tens of thousands of bodies

lie in Haiti's ditches.
 Hundreds of deferred dreams drowned
 in Katrina's waters . . . (Watson, 2010, p. 18)

This brings into view disasters like Hurricane Katrina, New Orleans 2005 and the 7.0 Port-au-Prince earthquakes, Haiti 2010 as focusing events for investigating the similarities and differences. Other opportunities to engage this compare and contrast frame are found in an examination of the hip-hop lyrics of Jay-Z's rap "Minority Report" and Mos Def's "Katrina Klap" or "Dollar Day" as it is also referred. The first assignment might be to have students listen to the songs while reading along and underlining lyrics that stand out to them. From "Minority Report", students might focus their gaze on:

Wouldn't you loot, if you didn't have the loot?
 Baby needed food and you stuck on the roof
 Helicopter swooped down just to get the scoop
 Through his telescopic lens but he didn't scoop you
 The next five days, no help ensued
 They called you a refugee because you seek refuge
 The commander-in-chief just flew by
 Did he stop? No . . . (Jay-Z, 2006, n.p.)

From Mos Def's "Dollar Day", the focusing lyrics might be:

Listen, homie, it's Dollar Day in New Orleans
 It's water water everywhere and people dead in the streets
 And Mr. President he bout that cash
 He got a policy for handlin the niggaz and trash
 And if you poor you black
 I laugh a laugh they won't give when you ask
 You better off on crack
 Dead or in jail, or with a gun in Iraq
 And it's as simple as that
 No opinion my man it's mathematical fact
 Listen, a million poor since 2004

And they got - illions and killions to waste on the war
 And makes you question what the taxes is for
 Or the cost to reinforce, the broke levee wall (Mos Def, 2006, n.p.)

After discussing these songs, it would be appropriate to ask students to reflect on Katrina's intersections with other disasters by creating a three-column chart with the headers Before, During, and After at the top: and four rows labeled Haiti, 2010-Earthquake, New Orleans, 2005-Hurricane Katrina, Southeast Asia, 2004-Boxer Day Tsunami, and Vieques, Puerto Rico, Twentieth and Twenty-first Century Environmental Inequity and Military Colonialism. An exercise such as this offers broad implications for thinking about self-identity as "simultaneously multiple and integrated, embracing the definitive boundaries of each category – race, gender, class, et cetera – " (Alexander, 1994, p. 696).

Like Haiti, New Orleans, and Southeast Asia, Vieques, Puerto Rico is contextually rich for advancing a critical environmental education that is grounded in a critical pedagogy of place. The situation in Vieques represents a struggle for environmental justice that has lasted several decades but only gained any real ground recently. Since the beginning of the U.S. Navy's presence on Vieques, there have been demonstrations protesting the U.S. Navy's occupation and military base establishment on the island. The political atmosphere caused these concerns to go relatively unheard and with little or no support. Further, the U.S. Navy's presence in Vieques had little economic effect on the Puerto Rican economy despite the fact that it disrupted the small island's sugar cane economy, which attracted thousands of workers from the main island of Puerto Rico and other Caribbean islands as well. Aside from a brief increase in

construction jobs, the military presence offered little in the way of employment and visits to Vieques by the troops were sporadic and brief and could not sustain a local service economy. Thus, Vieques' economy experienced a dramatic decline from which it still has not recovered. In response, more than 30,000 people were forced to emigrate; to this day, the small island has the highest unemployment rate in Puerto Rico. As a result of the lingering effects of the U.S. Navy's occupation, much of Vieques population lives in poverty. Perhaps most egregious is that the U.S. Navy used the island of Vieques for a wide range of exercises, including air, land, and sea bombings, firing live ammunition (napalm and shaft), and mining training areas with explosives. As recent as 2000, it was discovered that the U.S. Navy had secretly used depleted uranium. This alarming reality begs the question – what is the rate of radioactive decay for uranium?

For decades, constant explosions and black smoke in the sky above has had deleterious health consequences for the Viequenses. It was not until the early 1980s that residents started to notice that more and more people were becoming sick in their community. Seeking answers, the communities pushed for studies to analyze the sudden increase in health risks. A study of the ecology found high concentrations of copper, zinc, nickel, cobalt, lead, and cadmium in the surrounding animal population and soil. Ecological studies of the region have found that people of Vieques had a 27% higher risk of developing cancer, a 40% higher mortality rate, and a 70% higher risk of dying from diabetes mellitus than the inhabitants of the mainland of Puerto Rico. Indeed, the list of both environmental and health issues in Vieques as a result of the military occupation has become both long and varied over the years. Consequently, the Viequenses report that

their everyday life on Vieques during the occupation was likened to living in a war zone (Yelin & Miller, 2009).

To best understand the military colonialism on the island of Puerto Rico as an experience rooted in inequity, a focusing frame is required. Environmental justice provides such a framework for focusing on the “. . . interaction of emerging social movements, technological advances in geographical information systems and spatial statistics, and a growing number of policy maker’s intent in disproportionately affected communities” (Pastor et al., 2006, p. 1), and is becoming more concerned with question: why do some racial, ethnic, and lower socioeconomic status communities suffer the brunt of more environmental danger than other communities? (Rivera & Miller, 2007). These places become “zones of sacrifice”, thus relegating the people who reside in these areas “to being disconnected from the enjoyment of the rights normally associated with the dignity of being a citizen . . . (Deng, 2006, p. 219). Related to this notion of lacking dignified homeland citizenship is a poetry verse from “A Poem about Vieques, Puerto Rico” penned by insurgent scholar June Jordan in which she asks:

If you were in Paradise
would you expect to find the U.S. Navy
and the Marines bombing the hell
out of the land/mining the waters
and throwing indigenous birds indigenous
trees into extinction? (Jordan, 2007, p. 293)

Shared sentiment is expressed in the poem “Grito de Vieques” by Aya de Leon, in which she expresses:

My name is Vieques
 I am a Puerto Rican girl.
 My stepfather is the United States.
 He comes into my room at night to do his business.
 My name is Vieques.
 I used to dream that Spain, my real father, would
 come back and rescue me.
 But he's gone for good.
 I have only the faint and echoing voices of Africana
 and Taina ancestors telling me that
 I can survive this
 My name is Vieques.
 This is my body. . . . (Leon, 2000, n.p.)

As both of these poems referencing Vieques indicate “poetry is not only dream and vision; it is the skeleton architecture of our lives. It lays the foundations for a future of change, a bridge across our fears of what has never been before” (Lorde, 1984, p. 38).

Given that both Haiti and Vieques “exist in colonial relationship to the States” (Rowell, 2000, p. 53), what is Haiti’s relationship to Vieques as it relates to disaster spectacle and disaster capitalism? Almost two years after the earthquake, “more than a million Haitians are still homeless, only 5 percent of the rubble has been removed, and only 10 percent of the \$5.3 billion in aid pledged by countries and organizations around the world has been spent. In the aftermath of the failed aid effort, a deadly cholera outbreak has exploded across the country. So far, 5,000 Haitians have died of the disease out of 300,000 who have been infected (Sanchez, 2011, p. 36). Lenelle Moïse a Haitian American poet, wrote the poem “Quaking Conversation” to focus our attention on the forgotten plight of Haiti. She says:

I want to talk about Haiti.
 How the earth had to break

the island's spine to wake
 the world up to her screaming.
 How this post-earthquake crisis
 is not natural
 or supernatural.
 I want to talk about disasters.
 How men make them
 with embargoes, exploitation,
 stigma, sabotage, scalding
 debt & cold shoulders.
 Talk centuries
 of political corruption
 so commonplace
 it's lukewarm, tap,
 Talk January 1, 1804
 & how it shed Life.
 Talk 1937
 & how it bled to Death.
 Talk 1964. 1986. 1991. 2004. 2008.
 How history is the word
 that makes today
 uneven, possible.
 Talk New Orleans,
 Palestine, Sri Lanka,
 the Bronx & other points
 of connection. . . . (Moïse, 2010, n.p.)

What is telling in this poem is that it reveals the on the ground conditions in Haiti prior to the 2010 earthquake. Haiti was one of the poorest countries in the world, and the poorest of the Northern Hemisphere. Consequently, from the late 19th Century through the 1930s, poor rural Haitians increasingly began to migrate to Cuba and the Dominican Republic to find work in the sugar plantations. Since the mid-1950s, migration ties to the United States and, to a lesser extent, Canada have also been important. As the country descended into chaos after the breakdown of the Duvalier dictatorship in the late 1980s, Haitians migrated to the United States in large numbers. Further, environmental factors

impact these and other migration patterns in Haiti in major ways such that environmental degradation and disasters are considered trigger for Haitian migrations outside Haiti's borders. Not least of all, the poor management and use of environmental resources impedes a prospering agricultural economy. Political instability and oppression are also critically important to Haitian's migration decisions. As cited in Alscher (2009), Haitian migration is induced by both environmental and political factors that have reinforced each other over long periods of Haitian history. Poor governance has had the effect of weakening food security, reducing state capacity, and triggering environmental migration. Such problems in governance include both the serious flaws of the Duvalier regime as well as macroeconomic stabilization policy in the modern era. Moïse (2010, n.p.) masterfully transforms this silence into language and action (Lorde, 1984, p. 43) as expressed in the following verse:

Talk centuries
of political corruption
so commonplace
it's lukewarm, tap,

These macroeconomic policies, as enforced by the International Monetary Fund (IMF) and World Bank (WB), which obligate Haiti to pay a debt along with lowering tariffs impacted negatively on Haitian food security in such a way that foreign commodities now flood national markets in a way that have prevented Haitian producers from competing in the global market place. Additionally, with less state investment in the agricultural sector, rural populations were adversely effected and forced into the urban area of Port-au-Prince in search of factory-related employment opportunities resulting in

a rural exodus that fueled international migration patterns prior to the 2010 earthquake (Eliscar, 2010).

As poet Martin Espada said, “Poets have always embraced and articulated . . . a ‘culture of conscience.’” They make us see and feel the events in ways that the news stories don’t. “Quaking Conversations”, like “Grito de Vieques”, “A Poem About Vieques, Puerto Rico”, “Dollar Day”, and “Minority Report” is a call to the culture of conscience that asks the reader or listener to reflect upon the critical geographies of these places today and in the past. “Taken together, a critical pedagogy of place aims to evaluate the appropriateness of our relationships to each other, and our *socio*-ecological places. A critical pedagogy of place ultimately encourages teachers and students to reinhabit their places, that is, to pursue the kinds of social action that improves the social and ecological life of places, near and far” (Gruenewald, 2003, p. 6) and to not only learn about *socio*-ecological places via social vulnerability, but also through biophysical vulnerability. As a case in point, the levee, an integral component of Hurricane Katrina becomes a topographical teaching tool to define biophysical vulnerability to floods (Colten, 2006, p. 731). Those would be place-based educators are undoubtedly Freirean “cultural workers” (Freire, 1998) who embrace urban contexts and are involved in ecological projects such as redressing environmental racism . . . and initiating other community development activities that make urban and rural, social, and ecological connections (Hart, 1997; Smith, 2002; Smith & Williamson, 1999). Place-based educators are also committed to fostering ecological literacy (Orr, 1992; Smith & Williams, 1999; Thomashow, 1996) in a citizenry capable of acting for environmental

justice and ecological sustainability, a goal that ultimately entails monumental changes in lifestyle, politics, and economics (Huckle & Sterling, 1996).

How might this critical environmental education curriculum be implemented?

Environmental educator and activist Riki Ott suggests an Ultimate Civics approach which is driven by the unprecedented threats to our communities, environments, and local economies. This approach can be interactive, interdisciplinary, and offer practical skills for systemic problem-solving; it discourages bystander apathy (Soo Hoo, 2004, p. 200) while inspiring and encouraging students to step up and take action in order to make a difference with respect to the critical environmental issues shaping their lives. Zoe Weil believes that educators must first reformulate what they commonly think of as the goal of education - preparing students for jobs in our economy. As a vision, it is "too small and outmoded for today's world." Instead, she advocates that educators teach students to be conscious choice makers, "a generation of solutionaries", who can cope with the challenges of our changing, imperiled world. Co-founder and president of the Institute for Humane Education, Weil emphasizes the need for an education system that provides people with the knowledge, tools, and motivation to change the economic system as opposed to adapting themselves to it. It is my belief that Ultimate Civics and Humane Education as respectively defined by Ott and Weil provides an integrative approach for using critical place-based education to learn through disasters or crises like Vieques, to counter pedagogical messaging of mass media that persistently and relentlessly miseducates the public to understand disasters or crisis as natural and inevitable. An example of an integrative lesson incorporating Ultimate Civics and Humane Education

would be teaching about the BP Oil spill impact on the wetland environment of the Gulf Coast and the residents who make their living in this region of the world. Furthermore, as I've explained, such media production of disasters or crises functions pedagogically to define what is possible to think and what is impossible to imagine for the future and fosters disaster pornography, disaster myth, spectacularization, and disaster tourism. Yet, as powerful as mass media is as a pedagogical force, teaching in the traditions of critical pedagogy, critical theory, cultural studies, feminism, progressive education, and critical cultural production offer powerful tools to produce different kinds of visions – hopeful, democratic visions that articulate with growing democracy movements around the world. These teaching traditions lead the way towards disaster and crisis education being fully integrated into critical environmental education.

CHAPTER VI

**CRITICAL GEOGRAPHY, PUBLIC PEDAGOGY, AND THE RESPONSIBILITY
OF PUBLIC ADMINISTRATORS**

Living with risk is endemic to this restless planet. Learning to manage risk more efficiently and effectively is attainable through carefully designed sociotechnical systems that incorporate on a process of continuing organization, and interjurisdictional learning.

—Louis K. Comfort (2007, p. 197)

Critical geography aims to deconstruct “place” by demystifying the various ideologies that encapsulate the people that reside there. Hurricane Katrina offers the world a context for wrestling with critical geography by exposing “shocking truths about the place: the bitterness of its sharp racial divide, the abandonment of the dispossessed, the weakness of critical infrastructure” (2005, n.p.). Therefore, the people reflected on the September 2005 covers of *Newsweek* and *The Economist* in Figure 20 were chosen as contextual framework to highlight how various systems of control enacted in American media continue to reinforce negative images of black people and in so doing reinscribe an insidious form of biopolitics in post-disaster environments. The counter-narrative to these reinscribing images resides in mobilizing the political agency of anger that resides in the consumer of the images – a womanist project. Audre Lorde makes this point stating, “There are many occasions in each of our lives for righteous fury multiplied and

dividing” (Lorde, 1984, p. 169). This is one of those times. Mobizing anger to make sense of the failed government policies that compromised the recovery and survival of those individuals impacted by Katrina and the other disasters considered in this dissertation shifts the gaze from them as unworthy disasters victims or refugees and reassigns accountability to failed federal, state, and local policies that prevented public administrators from executing their job.

Figure 20. Newsweek and The Economist Cover



Since the occurrence of the 2004 Indian Ocean tsunami, Hurricane Katrina in 2005, and the 2010 Haiti Earthquake, “it can be argued that government policies substantially determine the economic and human risk associated with [natural] disasters” (Congleton, 2006, p. 23). All of these events have come to be labeled in their own way

as “disasters” by the mainstream media, either as unfortunate natural calamities by uncontrollable forces or as blundered “policy disasters” by incompetent or arrogant public administrators (Foster, 2007). Notwithstanding, the ultimate human-made disaster of our time, is unfolding every day on the floor of the United States Congress, in Iraq, Afghanistan, and anywhere else the U.S. is engaged in empire-building for the sake of spreading freedom and democracy American-style (Roy, 2004). However, in the particular case of Katrina, the hurricane lays bare, some seven years since its occurrence, that the U.S. has not resolved fundamental domestic disparities rooted in racial dominance, colonial and neocolonial power, and state violence.

Katrina also serves to remind that these inequities are deeply embedded and constitutive of American political, economic, and social life. As such, “the time of Katrina thus bespeaks the relevance of black subjection in the United States to the *global* conceptualization of racial dominance, colonial, and neocolonial power, and state violence in the shadow of disaster” (Rodriguez, 2007, p. 134). From the ongoing anti-immigration rhetoric, racist rhetoric and segregationist ideologies championed by the Tea Party, the 2008 Wall Street and bank bailout and resulting financial and housing crisis, voting rights violations of 2000 and 2012, the disproportionate enforcement of drug laws that negatively impacts poor communities of color along with a disproportionate incarceration rate of African American and Latino men, to the widening wealth and income inequality between the 99% and 1% that materialized into the Occupy Movement, the last two decades provide numerous examples reflecting the vast inequalities of our democratic system (Frymer *et al.*, 2006, n.p.). Consequently, the

disparities exposed by disasters like Vieques, the Indian Ocean tsunami, and Hurricane Katrina are emblematic of deep-seated, historical, and institutional roots suggestive of the reality that they were not simply an accident of geography or ecology. While it is therefore unlikely that public policies alone in the aftermath of these disasters or crises will resolve these disparities, it is hoped that the inequalities laid bare will mobilize an institutional response that promotes learning and flexible approaches to disasters in socio-ecological and sociotechnical systems that work more efficiently to promote democracy and minimize inequities. Thus, the swift and adequate response to recent Northeastern Atlantic Basin hurricanes, Isaac and Sandy, owes a debt of gratitude to Hurricane Katrina. Consequently, the experience of the institutional response to Katrina in the United States will be considered and compared to what was and will be considered in current and future disaster mitigation, response, and planning.

As the 2005 events of Katrina unfolded before our eyes in the media, many American commentators representing several media outlets were invited to offer their observations.

When referring to Katrina, “One of the invited commentators said something along the lines: *Is this the United States of America? These images remind me of Haiti. This is not acceptable.* Such a comment perpetuates further stereotypes about Third World countries, while failing to capture and interrogate the conspiracy that western countries including the U.S., have been plotting against poor African Americans, poor immigrants, and poor white folks who were abandoned during Katrina (Orelus, 2010, p. 127).

That what happened in New Orleans is not acceptable, but is or will be acceptable in Haiti exposes what Henry Giroux defines as the biopolitics of disposability. The

biopolitics of disposability in theory is supported a reinvestment in a hyper-neoliberalism that is “organized around the best way to remove or make invisible those individuals and groups who are either seen as a drain or stand in the way of market freedoms, free trade, consumerism, and the neoconservative dream of American empire” (Giroux, 2006, p. 175). In the case of Katrina, it revalidated “the sturdy symbiosis between black disposability and American nation building” (Rodríguez, 2007, p. 134). According to Giroux (2006), disposability is embodied in individuals who have been:

Excommunicated from the sphere of human concern, they have been rendered invisible, utterly disposable, and heir to that army of socially homeless that allegedly no longer existed in color-blind America (p. 175).

This theorization reveals, “disasters and crises are opportunities for institutional learning bought and paid for at high cost in lives, damage to ecological systems and loss of productive capacity. The dislocation that follows from disaster also opens avenues to the development of new institutions that can respond more effectively to similar events in the future and at a variety of scales” (Baker & Refsgaard, 2007, p. 331). Shock and awe over the severity of the damage from Katrina has been augmented by the perception that institutions supposed to be responsible for emergency response failed in their disaster response at multiple scales, including serious deficiencies at the local and national scale, even though the disaster was anticipated days before it arrived. What's more, Katrina both enabled criticism of and revalidated white racial dominance whereby the categorical “sanctity of white bodily integrity,” what Rodriguez names “white life,” is constituted through the struggle to secure “ascendancy over the mundane conditions of black

suffering” (Rodríguez, 2007, p. 136). As a case in point, this disposability was particularly evident in how the New Orleans prison population was treated as the storm made landfall. In fact, “it was the decisive moment as a prisoner told the Human Rights Watch, ‘they left us there to die’”(Sothorn, 2006). What this points to, as Michael Ignatieff concludes, is the safety of blacks ‘matter so little to the institutions charged with their protection’ (Ignatieff, 2005, p. 15). “*The Nation* [magazine] when referring to the prison population confirmed that grown men and women, in full view, were left to urinate and defecate on themselves” (Sothorn, 2006). This was the beginning of the indignities the evacuated prisoners were to face. It was a monstrosity, a debasement of the human class. A pressing question then is how does the treatment of these prisoners reflect on American society? Fyodor Dostoyevsky, in *Crime and Punishment* (1866), tells us explicitly that the degree of civilization of a society can be summed up by the treatment of its prisoners. The treatment of the prisoners in New Orleans jail forlornly echoes Dostoyevsky’s recognition. The important point here, it seems, is that you have committed the crime now you have to serve the time to pay for it. The very expression of punishment for crimes is what Foucault (1995, p. 34) terms ‘the expression of the power that punishes’. In Foucault’s view, power produces ideologies and discourses that legitimize and enlarge the interests of those served by the effects of such power. Race-based ideologies and discourses intimately intertwine with the Katrina narrative such that critics of the government response to Katrina have pointed out that its differential impact was not a “natural” disaster but the almost inevitable result of race-based policies that had worked against African Americans over decades. Borrowing from Deleuze and Guattari,

Katrina might then be understood as a ‘war machine’ that is alien in its mode of organization to that of the State, based on its movement in conditions of smooth space and its vertical mode of composition, thus accounting for the extreme ‘catastrophic’ disruption it is understood to have caused (Curtis, 2008, p. 115).

This ‘war machine’ metaphor that Katrina is fueled by the propagation disaster mythology and heightened militarization that accompanies all disasters and crises in post-9/11 U.S. Further, “hurricanes exhibit spatio-organizational attributes As Deleuze and Guattari explain, ‘if the nomads formed the war machine, it was by inventing absolute speed in a smooth space, by being “synonymous” with speed’, in contrast to the relative movement of the striated space of the State” (Curtis, 2008, pp. 124-125). The same can be said of tsunamis and earthquakes. The point being made here is that disasters and emergency planning can be seen as examples of a ‘naturalized’ logic of organization which places the State as the natural overseer of the material and ‘existential’ well-being of populations, at the expense of alternative socio-material configurations, and at the expense of the development of alternative *conceptions* of organization beyond (or ‘external’ to) the State (Grey 2007; Klein 2007).

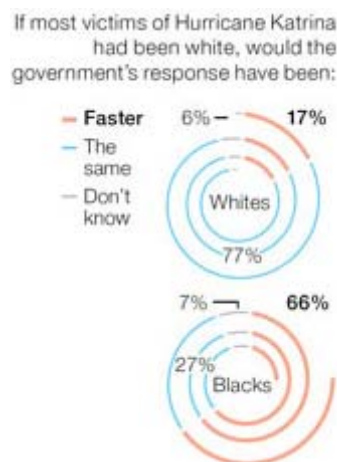
But in New Orleans, Katrina was not the major cause of the real human tragedy – the social catastrophe – visited especially upon the lives of poor black New Orleanians. For those stranded, their misery, suffering, despairs, and in too many instances death – following the breach of the levees and massive flooding – was not due solely to the working of nature. Instead “human-made” events contributed to the indignities and deplorable conditions. According to Garfield (2007) those “human-made” events were deeply rooted in a body of myths that describes how people behave in the face of extreme

disasters. Such myths are known as “disaster mythology”, and they not only influence public perceptions of what occurs during disasters, but also influence the views that shape the emergency response to disasters. The validity of established myths – such as those related to evacuation, panic, looting behavior as well as official response that includes martial law and shelter utilization – have been disproved by noted disaster researchers in well-documented social science studies (Stock 2007; Clarke 2002; Fischer 1998; McPhail 1991; Quarantelli and Dynes 1972; Tierney 2003). But, as Tierney et al. (2006) points out, disaster myths are not problematic simply because they are untrue. Rather, they are a problem because erroneous ideas can influence the focus and direction of the emergency response to disasters. Misguided and misleading responses informed by myths can exacerbate what occurs during disasters, thereby creating greater injury and harm as a result. Yet disaster myths persist (Garfield, 2007, p. 57). In the wake of Hurricane Katrina, a dominant disaster myth emerges. That myth, Tierney argues, characterized the behavior of stranded Hurricane Katrina victims as antisocial or deviant. Furthermore, she suggests that the dominance of this myth converged with and was further bolstered by race, class, and gender stereotypes that have historically constructed lawlessness as common or typical behavior for African Americans, particularly poor black males. Following Katrina, the importance of this intersection between disaster myth and stereotypic behavior was profound; “those who were stranded in New Orleans were portrayed in mass media and treated by government officials as criminals” (Garfield, 2007, p. 58) or worse as unworthy disaster victims. Those distortions in broadcast and print media were not only critical in shaping the perception of who were “good” and

“bad” citizens but also instrumental in how government officials responded to the perceptions of who were and were not criminals and ultimately how government officials assigned resources for disaster mitigation preparation and response.

Such mediated representations were devoid of *Ubuntu*, the South African ethic that stresses “I am because you are” or “We are because you are”, radical love, and human solidarity. The absence of such ethics as *Ubuntu*, radical love, and human solidarity where Hurricane Katrina and the Haiti earthquake are concerned begs the question, to what extent did color-blind racism play a role in shaping the way public administrators made decisions in response to these particular disasters. In the immediate days following Hurricane Katrina, The Pew Research Center for the People and the Press, as documented by Ignatieff (2005) in Figure 21 which reveals that had the majority of Katrina’s victims been white, 66% of black respondents believed the government’s response would have been faster compared with 17% of whites.

Figure 21. Storm Warning



Ignatieff cites this reality as epic betrayal of America's contract with Gulf state citizens and residents who were supposed to be shielded from natural disaster since 1927 when the Mississippi flood forged an alliance of Herbert Hoover, the Army Corps of Engineers, and public authority to erect the first levee system. To further substantiate the African American perception that the slow government response was race driven. White et al. (2009) cite evidence suggesting that the emotional responses of African Americans to the events surrounding Hurricane Katrina likely resulted from the concern among black Americans that the federal government's response to the hurricane was not only insufficient but have been more efficient had the victims been White. In relation to Hurricane Katrina, the survey data indicated that the hurricane did not expose racial inequality as problem to most white Americans. Why? Czaja (2007) suggests that while color-blind ideology and the influence of the media all likely play a role in perpetuating racial inequality and the racial opinion gap, social science research needs to examine the interactive discussion processes through which racial inequality is reproduced.

Additional reports released in the aftermath of Hurricane Katrina point to epic failures in socio-ecological and socio-technical systems. Two of the most important public documents are the House Select Committee report, *A Failure of Initiative*, and the report from Presidential Assistant Frances Fragos Townsend, *The Federal Response to Hurricane Katrina: Lessons Learned*. In its report, the House Select Committee characterized the response to Katrina as "a litany of mistakes, misjudgment, lapses, and absurdities all cascading together, blinding us to what was hobbling any collective effort to respond" (U.S. House 2006, p. x). According to the report, the governmental failures

included levee failure, warnings not heeded, communication failures, information gaps, lack of coordination, inadequate training, medical shortcomings, role of the private sector, lack of shelter, failure of initiative, and public administration dimension (Ink, 2006, pp. 800-802). The report also adds that though failures exceeded successes in response to Hurricane Katrina, two federal agencies are worthy of acknowledgement for having done their job well despite being steeped in bureaucratic chaos: the National Weather Service and the National Hurricane Center. This suggests that science succeeded in areas where government and public policy could not. If scientific knowledge were edified in the government and public policy realm, might the insufficient levee system that permitted the decimation of the Lower Ninth Ward by Hurricane Katrina in 2005 and the refortified levee system that stands poised to protect New Orleans from future hurricane-like storms, the scale of Katrina, been completed prior to 2012? The answer to this question depends on one's positionality. Nonetheless, the newly renovated Seabrook floodgate complex in New Orleans, a \$14.5 billion and 133-mile chain of levees, flood walls, gates, and pumps (Figure 22) now stands nearly seven years after flood water from Hurricane Katrina drowned New Orleans (Schwartz, 2012, n.p.). The new system was designed and constructed to provide what is informally known as 100-year protection, which means it was built to prevent the kind of flooding that has a 1 percent chance of occurring in any given year. That standard is used by the Federal Emergency Management Agency to determine whether homeowners and businesses must buy flood insurance to qualify for federally regulated or insured mortgages. But New Orleans has seen storms far more damaging than the 100-year

standard. Katrina is generally considered to have been a 400-year storm, and rising seas and more numerous hurricanes predicted in many climate-change models suggest harsher conditions to come. While the Seabrook Floodgate Complex in New Orleans (Figure 22) has finally been rehabilitated, its rehabilitation should have been completed by 2010 according to the standard tentative timeframe of post-disaster protocols and the roles of different stakeholders as explained by Shaw (2006, p. 8).

Figure 22. Seabrook Floodgate Complex in New Orleans



The bottom line is that rehabilitation and reconstruction processes require a committed effort from multiple stakeholders. In the rehabilitation phase nongovernmental organizations (NGOs) can play a critical role at the interface between people and the government by communicating a community's needs and priorities to the government. Still, *The Federal Response to Hurricane Katrina: Lessons Learned* offers a detailed description of the problems associated with our national preparedness that were revealed

by Katrina: (1) lack of unified management, (2) weakness of command and control with the federal government, (3) insufficient knowledge and practice incorporated into the plans, and (4) insufficient regional planning and coordination (Ink, 2006, p. 802). Specifically the report points to the need for significant changes to the status quo, including adjustments to policy, structure, and mind-set.

Nonetheless, policy, structure, and mind-set at the macro-level does not change unless demographics are understood at the ground-level; preceding Katrina, the black poverty rate in New Orleans was three times that of whites (Stivers, 2007, p. 50). Prior to Hurricane Katrina's arrival, 67% of New Orleans' population of more than 450,000 was African Americans. Of the total, 28% of the city residents were living in poverty. Overwhelmingly, African Americans were among New Orleans poorest citizens. When Mayor Nagin ordered a mandatory evacuation more than one in three black households (59%) lacked a vehicle. Figure 23 (DeParle, 2005, n.p.) documents the extent to which poverty impacted those households that lacked a vehicle:

Figure 23. The Reach of Poverty in New Orleans

The Reach of Poverty in New Orleans

Each symbol represents 1,000 residents of the city living in poverty in 2000, with the percentage of each race living in poverty. The total population of New Orleans was 468,453.



Hence, many poor black New Orleanians were unable to comply with the evacuation order. For those who were able-bodied and wanted to leave but had no private means of transportation, city buses were dispatched to twelve locations to ferry people to the designated “refuge of last resort.” Additionally,

the city’s emergency evacuation strategy was aimed at those who either had cars or access to private transportation, while those who did not were stranded. No one knows for sure how many people were trapped in New Orleans on August 29 when Hurricane Katrina made landfall. However, we now know with certainty that those left in the city to face Hurricane Katrina’s fury were overwhelmingly black and poor (Garfield, 2007, p. 58).

This reality is documented by staff writers and photographers of *The New York Times*, *Washington Post*, and the *Times Picayune* as well as Spike Lee’s documentary *When the Levees Broke* and highlighted by curricula developed by entities like the Katrina Information Network, The People’s Institute for Survival and Beyond, Students at the Center, World Savvy Report, and the Columbia University Teacher’s College curriculum entitled *Teaching the Levees*. Therefore, Katrina teaches us that a vital way to make people less disaster vulnerable and more disaster resilient is to address and root out poverty, structural inequality, and institutionalized racism. And without a doubt, we can proclaim that “we are all from New Orleans now” (*The Nation*, 2012, n.p.). With this revelation comes the responsibility to receive education about how to avert future disasters or crises of this magnitude, a topic which is taken up in chapter 7.

Evacuation was also impossible by many impacted by the the Indian Ocean tsunami and the Haiti earthquake. Because the mind-set of public administrators was woefully inadequate in response to disasters on the scale of Hurricane Katrina and the

Haitian earthquake, characterizing and analyzing color-blind arguments and engagements as discourse help unveil the hegemonic ways means-ends calculations that were operationalized as widespread abandonment. According to Naomi Klein, such widespread abandonment, in both of these cases, forms the premise of racial/disaster capitalism as illustrated by the reality that the first responders to remove fellow citizens from harm's way were not state agencies or large charities but remaining local residents and activists or non-state actors who mobilized their resources and social networks. Given that such workings of power have played out during disasters like Katrina and Haiti and in their aftermaths, it seems appropriate to place them within the context of the narrative of capitalism and look at their relationship to the development of our dominant political and economic institutions. In this light, how neoliberal elites have seized the opportunity to thrust reactionary economic and political ideologies in times of disaster upon populations still reeling from the shock is clearly visible (Klein, 2007). Therefore, it is in the interest of disaster capitalism that the biopolitics of disposability must flourish. As another case in point, the biopolitics of disposability was operationalized

in the wake of Katrina [as] blacks were denied their 'American identity' and unremittingly described as refugees by the American media. In reducing African-Americans as refugees, the media has brought to the forefront the question: What defines an American identity? Taking a cue from Toni Morrison, in the problematic construction of an American identity, 'race', as Morrison explains, 'has always functioned as a metaphor, a necessary device for the construction, maintenance, and reinforcement of an American identity/culture as white' (Morrison, 1992, p. 47). The portrayal of African-Americans as seeking refuge in their own country is not be [taken lightly because the term 'refugee' carries a certain connotation.] Reducing African-Americans to refugees, regrettably, reminds us of America's cultural tradition that subjected black and other marginalized groups to ill-treatment and 'invisibilisation'. More importantly, it exposed the racist edifice that guarantees blacks' inequality as American citizens

and truly mocks blacks' claims as American to the American creed of equality and justice for all. (Pinder, 2009, p. 252)

Without a doubt, the 'invisibilisation' critique raises other relevant questions for exploration such as: (1) What does it mean when 12 percent of white Americans and 60 percent of black Americans surveyed nationwide believed that racism accounted for the federal government's delayed response to Katrina (Marable, 2006)? (2) Do the prominent images of black hurricane survivors and Haitian earthquake survivors serve as a window into lingering race and class divides, reinforce commonsense justifications for racial hierarchy, or do both simultaneously? (3) What does it mean that long before the earthquake struck Haiti, the outside world, especially the United States, described, defined, and marked Haiti by its suffering and contributed to its distinction as the poorest country in the Western Hemisphere? (4) Does the knowledge of Haiti from independence and before explain the corruption and weakness of the Haitian state that rendered public administrators unable to respond to those Haitians harmed and killed by the earthquake? Ultimately, these questions are an acknowledgement of the fact that race singularly did not impact the response of public administrators to the disasters or crises that unfolded in New Orleans and Haiti, but rather that privilege was also impactful. In very tangible ways privilege too often permits some people to choose the comfort of complacency over the responsibility of action.

Regardless of which group we're talking about, privilege generally allows people to assume a certain level of acceptance, inclusion, and respect in the world, to operate within a relatively wide comfort zone. Privilege increases the odds of having things your own way, of being able to set the agenda in a social situation and determine the rules and standards and how they're applied. Privilege grants

the cultural authority to make judgments about others and to have those judgments stick. It allows people to define reality and to have prevailing definitions of reality fit their experience. Privilege means being able to decide who gets taken seriously, who receives attention, who is accountable to whom for what. And it grants a presumption of superiority and social permission to act on that presumption without having to be worried about being challenged. To have privilege is to be allowed to move through your life without being marked in ways that identify you as an outsider, as exceptional or “other” to be excluded, or to be included but always with conditions (Johnson, 2006, pp. 32-33).

By benefiting some at the expense of the “other”, where these disasters were concerned, privilege perpetuated a hegemonic system that portrayed black and brown bodies as criminal insurgents and unworthy disaster victims that in turn influenced the emergency response offered by some government officials. In this respect, the “hidden curriculum of whiteness” (Leonardo, 2004, p. 144), saturated the institutional response to Katrina at federal, state, and local levels. Subsequently, in order to make sense of what happened and is happening in New Orleans and Haiti, the way in which privilege is operationalized and backed by political and socio-economic systems of the western world that devalue poor people and people of color, is to confront the pervasive “hidden curriculum of whiteness” embodied in privilege-evasive scripts. According to Bailey (2000, p. 289), privilege-evasive scripts “perpetuate social-political systems of domination that comes with expected performances, attitudes, and behaviors, which reinforce and reinscribe unjust hierarchies”. Returning to the aforementioned comments of the American media commentator who stigmatized the Haitian people as unworthy disaster victims when referencing Hurricane Katrina by remarking, *“Is this the United States of America? These images remind me of Haiti. This is not acceptable”*, the subordinating gestures and articulations of privilege-evasive scripts are evident.

Such a remark is problematic on many levels given Haiti's historic status as the first black independent nation in the west. Further, uncritical media commentary such as this evades speaking about the root causes of the economic, social, and political problems that have plagued Haiti for decades. These underlying economic, social, and political problems were greatly exacerbated by the magnitude 7 earthquake that struck Haiti late in the afternoon on January 12, 2010, devastating its capital city, Port-au-Prince, and the estimated three million people living there. And these root issues continue to impact the current cholera outbreak that is senselessly claiming lives. Yet it is clear that the human tragedy in New Orleans and the human suffering which is currently unfolding in Haiti is the legacy of slavery and colonialism. In referencing Haiti, anthropologist Barbara Miller states "colonialism launched environmental degradation by clearing forests. After the Haitian revolution of 1804, the new citizens carried with them the traumatic history of slavery. Now, neocolonialism and globalization are leaving new scars. For decades, the United States has played, and still plays, a powerful role in supporting conservative political regimes. "The early colonizers did not decide to occupy Haiti because it was poor. It was colonialism and its extractive ways that have made Haiti poor today." In Haiti today, "only 2 percent of the forest cover remains," wrote Steven Solomon, author of *Water: The Epic Struggle for Wealth, Power and Civilization*. During storms, water rushes off barren hillsides, causing deadly mudslides, clogging streams with soil and sewage and disappearing before it can replenish Haiti's diminishing groundwater reserves.

As a result, nearly half of all Haitians still lack satisfactory access to clean drinking water, and more than two-thirds live without adequate sanitation (Solomon, 2010, n.p.) all of which exacerbate the current cholera epidemic that is witnessing today. Adding insult to injury, as cited in the *The New York Times* (2012, n.p.), the cholera epidemic in Haiti, which began in late 2010, is bad and getting worse, for reasons that are well understood and that the aid community has done far too little to resolve. A chronic lack of access to clean water and sanitation make Haitians vulnerable to spreading sickness, especially as spring rains bring floods, as they always do. Summer hurricanes are bound to come; more misery and death will follow. The Pan American Health Organization has said the disease could strike 200,000 to 250,000 people this year. It has already killed more than 7,000. It gets worse. The Centers for Disease Control and Prevention released a report summer 2012 that cholera in Haiti was evolving into two strains, suggesting the disease would become much harder to uproot and that people who had already gotten sick and recovered would be vulnerable again. What is now known is that the United Nations bears heavy responsibility for the outbreak: its own peacekeepers introduced the disease through sewage leaks at one their encampments. Before that, cholera had not been seen in Haiti for more than a hundred years. Epidemiologic and microbiologic evidence strongly suggests that United Nations peacekeeping troops from Nepal imported cholera to Haiti, contaminated the river tributary next to their base through a faulty sanitation system and caused a second disaster. And, as the deaths and continuing caseload indicate, the world's response to this preventable, treatable scourge has proved inadequate. Cholera, never before recorded in Haiti, stayed one step ahead of

the authorities as they shifted gears from the earthquake recovery. While eventually effective in reducing the fatality rate, the response was slow to get fully under way, conservative and insufficiently sustained (Farmer & Ivers, 2012; Ivers & Walton, 2012; Sontag, 2012, n.p.; Piarroux et al. 2011; Chen-Shan et al. 2011; Walton & Ivers, 2011). Perhaps had first-responders learned from post-disaster response in Indonesia, a cholera epidemic could have been averted.

More specifically, during the post-disaster relief phase of the Indian Ocean Tsunami, the Centers for Disease Control identified an instructive set of myths to be avoided and realities to recognize in the public health response to disasters that are summarized in Table 7 (Leitmann, 2007, p. 150).

Table 7. Myths and Realities in the Public Health Response to Disasters

Myth	Realities
External medical volunteers with any kind of medical background are needed	<ul style="list-style-type: none"> • The local population almost always covers immediate lifesaving needs • Only skills that are not available in the affected country may be needed • Few survivors owe their lives to outside teams
Any kind of assistance is needed, and it's needed now!	<ul style="list-style-type: none"> • A hasty response not based on impartial evaluation can be counterproductive • Unrequested goods are inappropriate, burdensome, divert scarce resources, and more often burned than separated and inventoried • Seldom-needed items include used clothing, over-the-counter, and prescription drugs, blood products, medical teams, and field hospitals
Epidemics and plagues are inevitable after every disaster	<ul style="list-style-type: none"> • Epidemics rarely occur after a disaster • Dead bodies will not lead to catastrophic outbreaks of exotic diseases • Proper resumption of public health services will ensure safety (immunizations, sanitation, waste disposal, water quality, and food safety)
The community is too shocked and helpless to contribute	<ul style="list-style-type: none"> • Dedication to the common good is the most frequent response to natural disasters across all cultures • Most rescue, first aide, and transport is from other casualties and bystanders

Additionally, "free trade" supported by the US and other major countries through the International Monetary Fund (IMF) and the World Bank (WB) is another reason for Haiti's poverty. As an illustration,

Thirty years ago Haiti imported no rice. Today Haiti imports nearly all its rice. But those world financial institutions forced Haiti to open its markets to the world. Then the US dumped millions of tons of US subsidized rice and sugar into Haiti-- undercutting their farmers and decimating Haitian agriculture. (Quigley, 2010, n.p).

Today, Haitians need what their government and international donors have promised – permanent homes and sanitation, potable water and medical systems so they do not depend on relief. More than 1.3 million Haitians were left homeless by the quake in January 2010, and more than 1.3 million remain homeless today. The government of Rene Preval still has not made many of the most basic decisions, including where to build new housing, and whether or how it will exercise its powers of eminent domain. The Interim Haiti Recovery Commission, headed by Prime Minister Jean-Max Bellerive and former President Bill Clinton, is supposed to bring coordination, efficiency and transparency to the rebuilding, but this has yet to happen. What can be done to change this future policy and institutional response to disasters on the scale of Haiti and Katrina?

One viable recommendation for improving policy, structure, and mind-set at the macro-level comes from Farley et al. (2006) who suggests using Katrina as a focusing event to open a policy window since “focusing events can bring less visible policy items to the forefront of an agenda or reinforce already prominent agenda items, leading to timely political action in response to the problem, but alone may have only transient effects on agenda setting” (Kingdon, 1984, p. 103). The concept of policy windows is well supported by and builds upon conclusions from social psychology, evolutionary biology and policy theory. Since the 1950’s action research and change management pioneers have described social system as generally resistant to change with cycles of unfreezing-moving-refreezing wherein the status quo is interrupted by new information that changes attitudes, values, feelings, behaviors and policy structures (Lewin, 1951). Researchers presently use a similar model of punctuated equilibrium to emphasize that

incremental change in social systems is interrupted by periodic accelerations of deep structural change (Wollin, 1999), as can be specifically seen through trends in public agenda and policy changes in American politics (Baumgartner and Jones, 1993). In a new era of public policy theory (John, 2003), Kingdon's precedent concept of "policy windows" offers insight into when, why and how such periodic changes occurs or focuses attention on the politics stream. Specifically, the politics stream is "composed of such things as public mood, pressure group campaigns, election results, partisan or ideological distributions in Congress, and changes in administration' (Kingdon, 1984, p. 152). Including politics in the public policy analysis process is vital to understanding how policy makes it onto agendas. How decision makers interact with and perceive these political forces determines which policies they prioritize over others. Bargaining may be more important than persuasion as these actors strive to manipulate systems to align problems with policies. In particular, catastrophes provide the emotional leverage necessary to force fundamental policy changes, serving as "focusing events" that create policy window (Kingdon, 1984). In the case of Hurricane Katrina, it punctuated social and political attention albeit still unclear the extent to which this punctuation will translate to appropriate policy responses. Perhaps as a focusing event, Hurricane Katrina can keep open a policy window that examines interactive discussion processes through which racial inequality is reproduced and in so doing lead the way in "thinking with others and noticing what is going on around us so we will know how to put our attention, energy time and money toward strategic priorities in the struggle to end racism and other injustices" (Kivel, 2009, p. 759).

A second viable recommendation for improving policy, structure, and mind-set of policy makers at the macro-level is to ground policy makers in the tenets and practices of culturally relevant leadership as informed by the framework of culturally responsive teaching (Villegas & Lucas, 2002; Gay, 2002). Culturally relevant leadership in this vein compels leaders to critically examine their praxis and incorporate into it qualities that value culturally and linguistically diverse communities. This sociocultural consciousness or sociological mindfulness, as defined by Schwalbe (2005) equips public policy makers (leaders) with an affirming attitude toward people from culturally diverse backgrounds, commitment and skills to act as agents of change, constructivist views of leadership, willingness to learning about the experiences of others, and culturally relevant leadership practices all of which are requisites for shifting how we participate in and communicate about the reproduction of racial inequality.

Additionally, where future disasters, crises, or catastrophes are concerned, culturally relevant leadership provides an explicit framework for how white policy makers can utilize their power and privilege to offer a more appropriate institutional response to poor people of color in their struggle to survive than that which was witnessed during Hurricane Katrina. More specifically, sociocultural consciousness means understanding that one's way of thinking, behaving, and being is influenced by their social and historical context (race, ethnicity, social class, and language). Schwalbe explains that "the main benefit of this awareness is that it can make us more responsible members of a human community" (Schwalbe, 2005, p. 5). Therefore, leadership for cultural relevancy must critically examine sociocultural identities and interactions in

society that support institutionalized hegemony and which maintains a privileged society based on social class and skin color. It must also inspect and confront any negative attitudes held toward any cultural group. An affirming attitude toward individuals from culturally diverse backgrounds significantly impacts the relationship that leaders exercising a culturally relevant praxis can cultivate with their constituency at all levels of government. Commitment and skills to act as agents of change enable these leaders to confront barriers or obstacles to change and develop skills for collaboration. As agents of change, they assist the communities in which they serve to become more equitable over time and to exercise human agency.

Applied to disaster mitigation preparation and response, culturally relevant leadership strategies assist communities in constructing knowledge, building on their personal and cultural strengths, and examining their disposition from multiple perspectives. In short, these leaders position themselves as “. . . neither saints nor sparkling television personalities - who can situate themselves within a larger historical narrative of this country and our world, who can grasp the complex dynamics of our peoplehood and imagine a future grounded in the best of our past, yet who are attuned to the frightening obstacles that now perplex us” (West, 1993, p. 13). Therefore, in this context, culturally relevant leadership frames disaster reconstruction as a learning process through which the concerns related to a community’s needs in the aftermath of disaster; and the needs to increase their capacities to make them independent and resilient to any future disasters ins based (Shaw, 2006, p. 10).

An emergent model of such contextualized leadership is the *Gulf Restoration Network* who since 1994 have played a role in stopping pollutant discharges, reducing pollution runoff, reducing Corps of Engineers' permitting and projects destructive to the environment, monitor sustainable management of Gulf fisheries, limiting coastal development and beach armoring resulting in habitat destruction, protecting threatened and endangered wildlife, and limiting development of offshore mineral resources. In fact, the *Gulf Restoration Network* were frontline responders to BP's Deepwater Horizon disaster and will continue to monitor the situation post-Hurricane's Katrina and Isaac in the Gulf long after BP's remediation efforts have ceased. From the foot-soldiering work of organizations like the *Gulf Restoration Network* on the ground, the potential of successful reconstruction efforts resting in the hands of local social actors can be gleaned. Reconstruction, a third policy recommendation, should incorporate the local cultural aspects and should try to inculcate safer construction culture to the community. Such a reconstruction program should try to establish a strong bond within the community and also within different related stakeholders. The success of the reconstruction exercise will be judged by the degree to which actions were replicated by the community. Inputs on capacity building are therefore important. Thus, as the Indian Ocean tsunami has shown, the relief and reconstruction will very much depend on the administrative, political, social, and economic, and cultural context to provide a platform for experience sharing. Therefore, specific needs of any disaster reconstruction program should be to learn the lessons from each other's experiences, and share it among affected environments and to

document the reconstruction process as an educational tool for capacity building for future disaster mitigation programs (DMPs) at the intersection of vulnerable geographies.

A multi-stakeholder collaboration, as a forth policy recommendation, is essential for this process to unfold and move forward. Institutions that encourage individuals and communities to work together, which provide educational and material resources to enhance livelihoods in ways that build or rebuild social, human, built and natural capital stocks along with assisting in coordinating capacities participate in virtuous circles of development that reduce the risk of disaster. The examples given earlier of the Common Ground Collective and the Make It Right Foundation in New Orleans are efforts linking the response to Katrina to the socio-ecological roots of the disaster. In addition to rebuilding the built capital of the poorest parts of the city, it seeks to educate citizens and policy-makers about how racism exacerbated the Katrina disaster and prevent a similar situation from occurring again in the future.

Moreover, organizations like *Un techo para mi País* and *J/P Haitian Relief* began working immediately on the ground to make an impact in Haiti following the devastating earthquake in order to bring sustainable programs to the Haitian people quickly and effectively. Concerning the tsunami response, organizations committed participatory planning to reduce the risk of future disasters are representative of *The Asia Foundation* and *Tourism Concern*. Among its work to rebuild communities across Asia, In Indonesia, *The Asia Foundation* provided immediate assistance to Radio 68H to restore news and information to displaced persons in 50 welfare camps; in Sri Lanka, the Foundation supported mental health programs so that traumatized people will have access

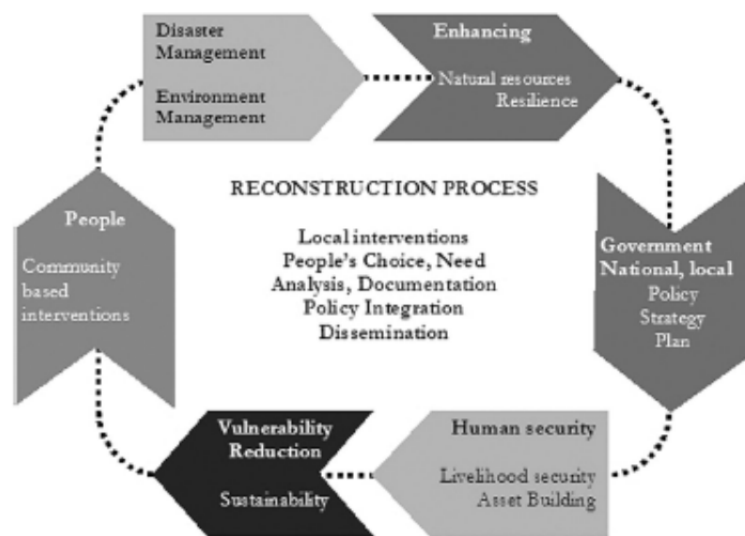
to caring and knowledgeable counselors to help them in the recovery process; in Thailand, the Foundation provided legal assistance for tsunami victims through free family law services for complex legal cases; and the Foundation gave more than \$3 million to Give2Asia's Tsunami Recovery Fund to support tsunami-related projects in the region.

A fifth policy recommendation examines organizational practices that facilitate disaster resiliency and those that limit it is the difference between vicious circles and virtuous circles of institutional development (Department for International Development, 2005). An example of a vicious circle of development was Federal Emergency Management Agency's (FEMA's) long-time practice of repeatedly paying to rebuild houses that had been destroyed by flooding, a policy which reduced the risk to housing developers, increased the risk to homeowners and encouraged the development of coastal zones. Virtuous cycles of development would instead seek to encourage growth in areas less likely to require recurrent insurance payments, that support local organizational capacity and which enhance social, human, built and natural capital stocks like those reconstruction efforts championed by *Common Ground Collective*, *Make It Right New Orleans*, *Un techo para mi País*, *J/P Haitian Relief Organization*. Thus,

The concept of virtuous circles and resilience come together through planning for sustainable development. A virtuous circle of development is one in which the different elements of development support and augment each other through improvement in the quality of life of the community. Interaction, coordination and understanding of organizational capabilities build social capital and provide the basis for coordinated emergency response and enhanced resilience (Baker & Refsgaard, 2007, p. 341).

One advantage of focusing on the local scale is that it does allow “the development of local – global relationships conducive to sustainability” (Gibbs, 2002). Figure 24 reflects the essence of this discussion, where reconstruction process (different interventions, analysis, documentation, policy reconstruction process) is not an isolated event, but is linked to vulnerability reduction and enhancing human security (Shaw, 2006, p. 18).

Figure 24. Relationship of Vulnerability Reduction, Human Security, and Reconstruction Process

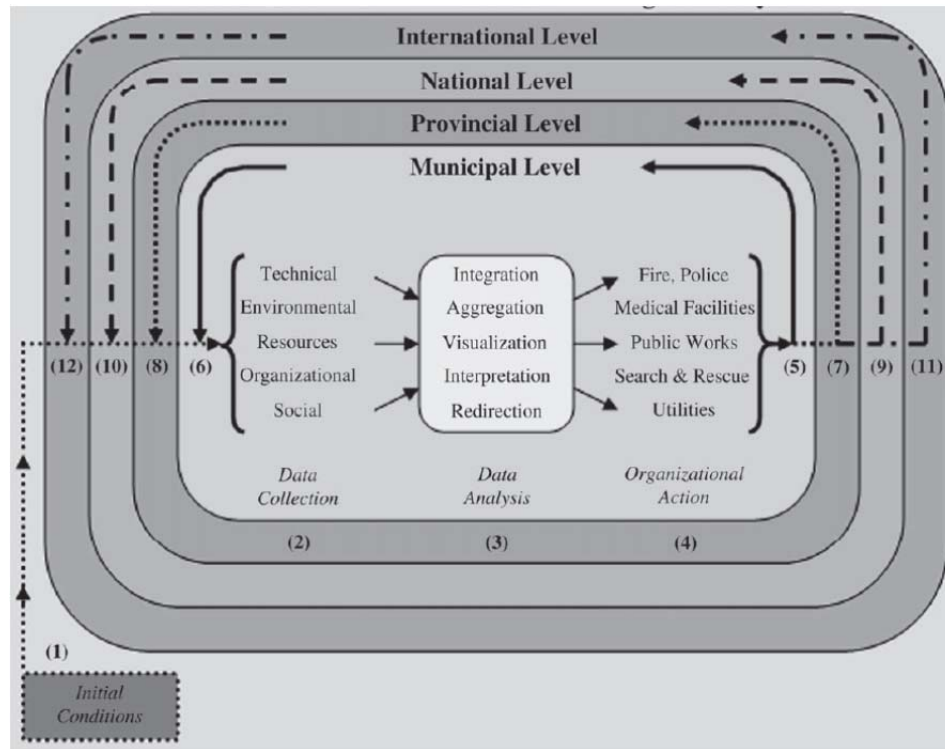


A sixth viable strategy is for institutional response to place amongst its highest priorities the creation of a “first response” capability that utilizes participatory planning as an essential component of the social learning process to build socio-ecological resilience and integrated systems coordination between and across scales (Baker and Refsgaard, 2007, p. 340). Contrary to contemporary disaster discourse, the government is not the most important socio-political actor (O’Brien, 2006). This is most telling in FEMA’s failure to respond adequately to Katrina and the World Organization’s ability to

respond to the cholera epidemic in Haiti. Contrary to popular belief, “control in disaster operations cannot be achieved through hierarchical measures alone. Rather, it develops through a process of rapid assessment of risk, integration of information from multiple sources, the capacity to formulate strategic plans of action, identification and correction of error, and a continual monitoring and feedback process among key actors” (Comfort, 2007, p. 192).

Even more, three major problems characterized the intergovernmental response to Hurricane Katrina – heterogeneity among actors, asymmetric information processes, and asynchronous dissemination of critical information to participating groups or different groups receive critical information at different times and initiate their own actions without and awareness of the impact on other organizations or groups (Comfort, 2007, p. 192). One model for improving the communication of critical information is the “bowtie” architecture for decision support (Comfort 2005; Ceste and Doyle 2004) as shown in Figure 25.

Figure 25. Bowtie Architecture for the Iterative Flow of Information Within a Disaster Management System



As shown in Figure 25, this design identifies key sources of data that “fan in” simultaneously to a central processing unit (or “knot”), where the data are integrated, analyzed and interpreted from the perspective and performance of the whole system. The new information is the “fanned out” to the relevant actors or operating units, which use the information to make adjustments in their specific operations (Comfort, 2007, p. 195).

Such a design depends on sufficient investment in the technical information infrastructure to support the interdependent tasks of cognition, communication, coordination, and control requisite for a collective response to an extreme event. This financial investment, most appropriate at the federal level, is essential to creating and sustaining the individual and organizational learning processes.

Five agreements regarding constructive change for the intergovernmental crisis response system emerge to justify investment in a nationwide information infrastructure to facilitate development of a common operating picture in extreme events. Such investments build on human capacity to learn and integrate technology for monitoring performance, facilitating detection, correcting for error, and enhancing the capacity for creative problem solving. They include:

- Human capacity to perceive risk increases with the timeliness, accuracy, and validity of information transmitted in reference to a core set of risk indicators for the community.
- Human capacity to recognize risk conditions can be increased by focusing risk data in formats that are directly relevant to the responsibilities of each major decision maker in the system.
- The capacity for coordinated action among multiple organizations can be increased by the simultaneous transmission of relevant risk information to each manager, creating a common operating picture of the status of the region.
- The collective capacity of a community to act to reduce risk can be increased through timely information search, exchange, and feedback processes that create an interorganizational learning system across jurisdictions and sectors.
- Without a well-defined functioning information infrastructure supported by appropriate technology, the collective response of a community exposed to serious threat will fail.

Evidence of successful investment in technical information infrastructure to support the interdependent tasks of cognition, communication, coordination, and control requisite for a collective response to an extreme event is apparent in the post-disaster response to the Indian Ocean Tsunami. In fact, the *World Health Organization* (WHO) conducted a regional forum that generated a useful set of lessons learned from the relief phase of recent disasters in the Indian Ocean area and which have broader applicability beyond the health sector and are summarized in Table 8 (Leitmann, 2007, p. 147).

Table 8. Lessons Learned from Recent Crises

Area	Lesson
Preparedness	Preparedness and national capacity building for risk management and vulnerability essential
Information	Immediate availability of up-to-date and credible information essential for assessing, monitoring, and taking actions in emergencies
Cluster approach	Positive experience, but future implementation requires additional efforts in management, planning, and institutional capacity building
Response	Improvement of response needed in mass casualty management, water and sanitation, nutrition, noncommunicable diseases, maternal and newborn health, mental health
Private sector involvement	Private sector and military frequently involved; need to agree on procedures/criteria for collaboration, and joint efforts
Health, nutrition, and water sanitation/hygiene	Gaps in joint work in nutritional assessments and medical aspects of management and nutrition; need to strengthen coordination between the health, water and sanitation, and nutrition clusters
Vulnerable groups	Vulnerability of children and pregnant women need to be addressed; need for data disaggregated by sex; need to assess impact of response on women and field female workers; adequate supplies in reproductive health and emergency obstetrics
Local expertise	Local experts trained to international standards will form a valuable resource for their region, providing long-term support
Human resources	Identification and mobilization of appropriately equipped and trained personnel quickly is essential; important to have a roster of experts on call

As the Indian Ocean Tsunami, Katrina and Haiti illustrate, globalization, structural adjustment, and neoliberal policies have introduced a growing ambiguity into the roles that states, non-governmental organizations (NGOs), and the private sector will assume in the face of ecological disasters and crises. Even now NGOs, the private sector, local institutions and the government, at multiple levels, have a role to play. Working in both humanitarianism and development, “NGOs play a major role in keeping acute human suffering on the global agenda. It is in their humanitarian and development actions that NGOs are most visible to the general public. They are also increasingly engaged in advocacy” (Christoplos, 2003, p. 98). NGOs are only as effective as the local institutions like Community Emergency Response Training (CERT) programs that they partner with (Katoch, 2007, 160). These programs are local, grassroots, and volunteer-based organizations that offer people a way to access disaster assistance in their survival irrespective of the regional, state, or federal response. They have proven to be a successful citizen-driven response to the need for better local preparedness against ecological crises and disasters such that:

Preparedness education and response skills are fashioned through a series of training modules, focusing on such topics as: triage, disaster medicine, urban search and rescue, fire suppression, damage assessment, and similar themes (Simpson, 2001, p. 55).

Nonetheless, too often the role of local institutions is underestimated while the role of the government is overestimated and elevated as the most important actor.

Since the marketplace will not spontaneously mitigate risk and respond to disasters, the responsibility for initiating new policies and practice with respect to disaster

mitigation preparation and response must shift to a wider range of participating actors.

Local and regional disaster recovery benefits from cultural interventions at multiple locations of decision making and sites of memory. Moreover, post-disaster experience shows that successful disaster risk reduction policies, integrated into community development work, saves lives and money while making vulnerable communities more resilient. This chapter has attempted to address what needs to shift in socio-ecological and sociotechnical systems to achieve these goals.

CHAPTER VII

**THE PEDGAGOGICAL POTENTIAL OF DISASTER OR CRISIS: TEACHING
CRITICAL ENVIRONMENTAL EDUCATION**

But learning is a place where paradise can be created. The classroom, with all of its limitations, remains a location of possibility.

—bell hooks (1994, p. 207)

“People’s history and future are at stake in how we interpret disaster. Teaching amidst disaster can expose or deepen awareness of structural inequality and human agency, and point toward radical possibilities for redefining recovery . . . and building solidarity in the classroom” (Trujillo-Pagan, 2010, p. 33). It is clear that disasters or crises can be (re)envisioned not only as focusing events for building solidarity inside and outside the classroom, but can also radicalize the teaching of environmental education. This hope grew organically from my personal engagement with and inquiry about the environmental contamination in Vieques, Puerto Rico as a consequence of United States naval occupation, the Asian tsunami of 2004, Hurricane Katrina, and the 2010 Haiti earthquake. However, it is also born from being impacted by two online publications that surfaced March 2012. The first was a letter, “An Apology to the Next Generation for the Turmoil to Come”, penned by TomDispatch.com blogger Chip Ward to his granddaughter Maddie and published in *The Nation* magazine. The second was a study published online in the *Journal of Personality and Social Psychology* that examined life

goals, concern for others and civic orientation in three generations – Baby Boomers, Gen Xers and Millennials. The latter publication was originally brought to my attention by a former senior enrolled in my AP Environmental Science class who is now an Environmental Studies major at American University. This study, which was subsequently highlighted by *The Huffington Post*, suggested that environmentally conscious teens and college students are on the decline. Results of the study revealed that Millennials reported thinking about social problems less, having less interest in government, making less effort to conserve energy, and being less interested in taking “green” actions to protect the environment, either personally or through government. Millennials were also less likely than Boomers and Gen Xers to participate in the political process through voting, writing to a public official, participating in demonstrations or boycotts, or giving money to a political cause (Twenge, J.M., Campbell, W.K., & Freeman, E.C. (2012, p. 12). Not only is this data disconcerting for its portrayal of Millennials as not valuing nature or a natural context, it is also troubling for its recognition that young people do not realize that change comes from people and not politicians. This suggests that some may reach post-secondary education apathetic or devoid of empathy without realizing that politicians can and should be held accountable for their actions or inactions. Indeed this realization is the social glue that leverages social change, sparks movements, and foments revolutions.

Perhaps the failure of K-12 and post-secondary education to transform apathy to empathy in Millennials, where care for the environment is concerned, compelled Ward to write the letter to his granddaughter characterizing a culture of environmental

carelessness mired in environmental degradation. Or perhaps Ward was compelled to pen the letter as an act of defiance to reject an environmental future steeped in anthropogenic global climate change, fossil fuel gluttony, disinterest in renewable energy research and development, increasing soil erosion, nutrient depletion, and ocean acidification, as well as the proliferation of endocrine disruptors associated with biological magnification. Whatever the case, I was profoundly touched by the following passage:

. . . I can teach you, encourage you, and help you be as strong and smart and confident as you can be, so that whatever the future holds, whatever crises you face, you are as ready as possible. . . . I know a better world is possible. We create that better world by reaching out to one another, listening, learning, and speaking from our hearts, face to face, neighbor to neighbor, one community after another, openly, inclusively, bravely (Ward, 2012, n.p.).

This future that Ward hopes for is only possible if sustainable metaphors are seized in the present as teachable moments within the classroom and the tenets of Empire, as described by Arundhati Roy in chapter 4, are rejected. Such a sustainable metaphor that advances speaking from the heart and embracing the full humanity of our neighbors constitutes embracing what Victoria Cunningham (2004, p. 37) characterizes as radical (revolutionary) love. Akin to this is rejecting the present culture of environmental carelessness that chooses to not change future environmental outcomes. It also means rejecting the culture of K-12 and post-secondary schooling, a neoliberal structure that constrains liberatory forms of education seeking to deconstruct dominant ideologies and power differentials in the classroom. It means breaking out of the mold that speaks not in a language of cooperation and compassion, but rather in a language of competition and

violence. I also believe environmental education with an environmental justice orientation, as taught through the lens of disasters or crises, offers a way forward for advancing the sustainable metaphor of radical (revolutionary) love and is capable of framing a context that is definable as critical environmental education. For that reason, this chapter is divided into four sections.

First, I critique the history of environmental education and its focus on valuing environmental issues as opposed to environmental justice. Second, I offer an analysis of how disasters or crises are pedagogical by explaining the nexus that exists between environmental justice practice and environmental education. Third, I examine how making environmental justice the centerpiece of environmental education radicalizes and criticalizes the teaching of it while building solidarity in the classroom particularly as it relates to the role of the critical environmental educator. Fourth, I offer examples of critical environmental education.

History of Environmental Issues in Environmental Education

The roots of environmental education (EE) are traceable, first, to the promotion of nature and outdoor study, essentially in primary schools, and later to the conservation movement. Nature study gained prominence through the school camps movement and its primary purpose was, and still is, to develop an understanding and appreciation of the natural environment through first-hand observations. The conservation movement grew gradually during the first half of the twentieth century and introduced a concern for species and natural area preservation through responsible conservation management. This concern was expressed morally and aesthetically by Aldo Leopold in *A Sand County*

Almanac (1948) and politically by the formation of the International Union for the Conservation of Nature and Natural Resources. Historically, environmental education, framed as conservation education, has concentrated on helping “the public better understand the importance of natural resources to our society, and developing citizen support for natural resource management programs” (Stapp, 1976, p. 46). Beginning with Rachel Carson’s *Silent Spring* (1962) and Hardin’s (1968) *Tragedy of Commons*, the 1960s brought warnings of imminent ecological disasters. Extensive media coverage of environmental issues, the publication of numerous books by ecologists, and the emergence of organizations like Friends of the Earth and Zero Population Growth reflected a widespread concern in the late 1960s and early 1970s that action was needed to change the prevailing pattern of misuse of the environment.

Environmental issues can be local and personal, community-wide, regional, national, or international. They are rooted in human beliefs and values, which makes them culturally relevant to learners and often times fraught with disagreement. To many scholars in EE, environmental issues are at the heart of the discipline. They represent the intersection between the science underlying specific environmental problems and the socio-cultural elements that contribute to those problems and that make potential solutions controversial, and they provide learners with entry points into attempts at informed participation at the community level in environmental remediation and improvement. Because of this, it becomes the ultimate responsibility of the environmental educator to help learners of all ages understand the character of all issues, and learn to respect the fact that a single issue may well be surrounded by a wide array of

intervening variables or divergent personal or group beliefs that are grounded in the values that permeate recommended solutions to the issue.

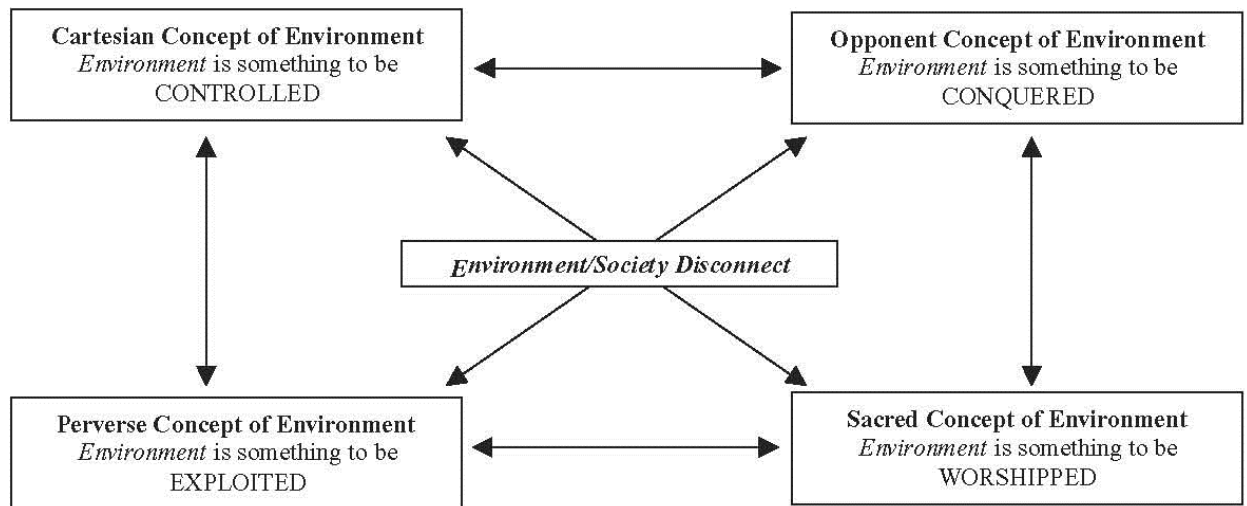
Environmental skills instruction is also a dimension of this environmental education framework and is directly attributable to the knowledge and skills of the environmental educator, beginning with the scientific and socio-cultural knowledge that she/he brings to understanding an issue. As K-12 environmental education curriculum is currently packaged and delivered in the United States, the 1990 National Environmental Education Act (NEEA) mandates that the United States Environmental Protection Agency (EPA) provide national leadership for increasing environmental literacy. The problem with the NEEA is that it

was not written to accomplish systemic change; it was written to introduce thousands to environmental issues in their communities and, hopefully engender a desire to protect and a willingness to act to preserve our country's natural resources. . . . Although the public's awareness of environmental issues is growing, their understanding of the issues and their ability to solve these problems are not (Potter, 2010, 25).

This reality underscores the current trend in environmental education, but not what needs to be done to reverse it.

Barry (2010) also documents this reality as the *environment/society disconnect* (Figure 26) that infiltrates the secondary school system leading to deficit thinking in how students understand the social dimensions of environmental problems. An example of deficit thinking would be attributing the development of asthma in young children to lack of physical activity as opposed to exposure to nitrous oxides and sulfur dioxides, EPA-registered criteria air pollutants.

Figure 26. Tetrad of Environment Informing the Environment/Society Disconnect



According to Barry, this environment/society disconnect is rooted in the environmental philosophies/movements of the 1970s and 1980s:

The 1970s, therefore, led to the creation of popular environmental movements, anti-anthropocentric in scope, that continue to inform environmental debate to this day: Early in the 1970s, James Lovelock proposed his Gaia hypothesis that attempted to explain the self-regulatory properties of a living planet Earth. In 1973, Arne Naess presented his Deep versus Shallow Ecology thesis, which, along, with George Sessions, formed the nucleus of the Deep Ecology movement. The 1970s saw the rise of the animal rights movement, whereby Peter Singer, among others, attempted to prove sentience among nonhuman animals, leading to calls for interspecies equality. Finally, in the early 1980s, Murray Bookchin advanced a philosophy of social equality that explained our current predicament as a “confluence of social and ecological crises” (Barry, 2010, p.117).

As a conceptual framework, the concept tetrad of the environment is useful as a platform for values clarification, allowing students to explore, question, and challenge personal and societal values, but otherwise it is limited and positivistic. Nonetheless, the concept tetrad of the environment offers a workable frame for students to determine whether the

hidden curriculum of their schools supports the environment/society disconnect raising questions like: “Is environmental education educating about the environment, in the environment, or for the environment? Which environment? What pedagogy should be implemented” (Short, 2010, p. 8)? As it currently stands, the normative frame of reference for exposing secondary students to environmental issues in environmental education is in a very detached, compartmentalized, and marginalized fashion. This denies students the opportunity of using their unique positionality “to deconstruct marginalizing categories through the learning process” and from harnessing their curiosity “to question social construction and advance more just and inclusive understandings of identity” (Mahraj, 2010, p. 4).

As a rupture to the normative frame of reference, studying disaster or crisis grants access to marginalized standpoints that are instructive. bell hooks (1990) argues that from marginal standpoints we can theorize counter-hegemonic cultural and political practice. Not only does EE as it is currently taught overlook ruptures as teachable moments, William Scott points out its omission or tendency to overlook education for sustainable development (ESD), another dimension of environmental education. As defined by Albala-Bertrand (1992), “the function of education in sustainable development is mainly to develop human capital and encourage technical progress, as well as fostering the cultural conditions favoring social and economic change” (p. 2). The concern here for the manner in which environmental education is currently taught resonates with Yosso (2005) and begs the question, “Whose culture has capital” (p. 77)? For this and other omissions, from a Foucaultian (1977, 1991) and Girouxian perspective,

there is much reason to be mindfully skeptical about environmental education's current efforts, which reflect a commitment to a neoliberal governmentality. As has been stated, this business-as-usual approach to environmental education resembles the hidden curriculum of schooling and does not subscribe to teaching that another world is possible. Extending to post-secondary education, this neoliberal project aims to restructure social life thus ensuring that students are not equipped to apply the knowledge they've gained to the actual needs of the world. As Giroux (2009) notes:

If colleges and universities are to define themselves as centers of teaching and learning vital to the democratic life of the nation and globe, they must acknowledge the real danger of becoming mere adjuncts to big business, or corporate entities in themselves (p. 38).

One curricular resolution for addressing the constraints of environmental education is for it to marry an environmental justice orientation.

Environmental Justice and “Critical” Environmental Education Synergy

The dynamics of environmental justice, also known as ecological democracy or ecojustice, are increasingly evident at local and global spectrums of place. Social justice, environmental health, and environmental justice situations over time have rarely been single issues or mutually exclusive, rather, each persists among political ecologies. Environmental justice components in education, and across the curricula, remain critical as sprawling geographical boundaries merge and as demographics within suburban, urban, and rural areas interchange. Environmental equity/equality and toxic production/distribution practices negatively affecting Earth's airways, waterways, and foodways have become concerns and challenges for all populations. All life forms rely

on environmental protection factors and precautionary principles/approaches through educational practices, implementation, awareness, and educational ethics of sustainability, conservation, integrity and preservation. Environmental burdens such as natural hazards, disease, and anthropogenic impositions affect various sectors of societies differently at local, regional, and systemic levels. “One important tool for future disasters, and social change in the absence of disaster, is simply knowledge of what really happened” (Solnit, 2010, p. 45). One avenue to acquire this knowledge is through exposure to critical environmental education (CEE) that accommodates on environmental justice framework. “Environmental justice is political action and social mobilization that marshals public and private commitment to change. By merging environmental, social equality and civil-rights movements into one potent political force, environmental justice advocates have considerable influence on public policy at all levels” (Cutter, 1995, p. 113). Robert Bullard is credited with providing the language of environmental justice along with empirical support documenting the disproportionate burden of hazards and noxious land uses in minority communities in landmark publications *Dumping in Dixie* (1990), *Growing Smarter: Achieving Livable Communities, Environmental Justice, and Regional Equity*, and *Just Transportation: Dismantling Race and Class Barriers to Mobility*.

In view of that, the intersection of environmental justice and environmental education accommodates interdisciplinarity, multidisciplinary, and transdisciplinarity in curricula and pedagogies. An example of this would be using Figure 20 to promote visual literacy, the ability to interpret, negotiate, and make meaning from information

presented in the form of an image, to gain and increased understanding of ordinary citizens impacted by the environments in which they reside and the constraints they must negotiate in order to survive. Such a lesson would transition to a focus on media literacy, competences that enable analysis, evaluation and creation of messages in a wide variety of media, by querying the choice of subjects to place on the cover of the publications along with considering essential questions like: how do media frame news events, what is the role and responsibility of news journalism in framing stories of national interest, how can the consumers of media discover what is left out of the stories presented to us in the media, and what can consumers of media do to change the manner in which the media frames black bodies in uncritical ways? And it is at this intersection that CEE exists. Further, this intersectionality accommodates Chet Bowers' ecojustice theory such that:

Ecojustice philosophy is based on the notion that language carries forward particular cultural metaphors and deemphasizes or ignores others, which influence attitudes toward nature. Some of these metaphors are part of the classroom curricula and are taught as part of the dominant discourse, or as part of what cultural narratives are privileged in society. The cultural narratives embedded in education may inadvertently perpetuate the ways in which students frame their relationships with other people and the Earth's natural places (Mueller, 2009, pp. 1033-1034).

Applied here, ecojustice philosophy offers a prism to teach comparatively about disasters or crises such that they serve as teachable moments by which teachers, students, and community members can examine multilevel connections between the U.S. and other nations. What's more, disasters or crises help students distill issues of race and class through an examination of how ideologies, philosophies, and traditions can adversely affect those considered "other" in the U.S. and abroad. Echoing Orr, all education is

environmental education and we teach students that they are part of or apart from the natural world by what is included or excluded from the environmental education curriculum (Orr, 1991). As I view it, this is the essence of critical environmental education which is interested in emerging educational strategies and information dissemination.

Beyond educating for place-based pedagogies, critical environmental education also has the capacity to consider topics ranging from environmental health issues related to global climate change hazards, tactics regarding geopolitical boundaries that account for resource extraction, utilization, scarcity, distribution, and conflict resolution, as well as environmental justice within bioregional frameworks of knowledge as participatory endeavors, e.g., implementation and involvement in programs; school and community gardening; supporting local and/or green economies; indigenous knowledge and education; and policy design. For environmental education not to critically consider topics like that of the biopolitics of disposability exacerbated by the experience of human disasters or crises is to be complicit with what Bowers (2002) defines as the root metaphor of traditional environmental education stating, “An educational process based on this root metaphor must recognize that living systems involve both replication (conservation) or patterns of organization as well as changes introduced by internal and external perturbations” (p. 29). In appropriating discourse analysis, critical pedagogy, and critical race theory to analyze the root metaphors that continually impact the living systems - people (social actors) of Vieques, South Asia, Gulf Coast region, and Haiti – that survived internal and external perturbations, namely the disasters or crises

themselves, I've attempted to argue for the pedagogical and curricular imperative of critical environmental education to teach against the biopolitics of disposability while simultaneously teaching about disaster preparation and risk reduction.

As it currently stands, borrowing from an environmental justice framework (Bullard, 2006; 2000), critical environmental education offers the potential to consider questions that include but are not limited to:

- 1) How do social justice, environmental justice and environmental health issues compound in complexity in urban, suburban, and rural communities adjoin, demographics interchange, and industry/commerce restructure and/or relocate?
- 2) What are the mechanisms involved in encouraging, teaching, and preparing local communities and global citizens to become all-terrain (resilient) ready in case of ecological or economic collapses, e.g., self-reliance, resiliency, emergency training, and appropriate mass transportation systems?
- 3) What are the ecologically safest, most humane and just manners for siting, detecting, containing, and managing toxic waste, industrial emissions, and other environmental pollutants so that specific sectors of society do not bear the burden disproportionately?
- 4) In order to create strong community alliances, how are environmental educators and leaders researching the histories, cultural practices, and individual lives that compromise the communities they promote environmental justice in?
- 5) How are the basic tenets of environmental justice interconnected to human rights, civil rights, and social justice and how are they being practices, implemented,

written about, advocated for, taught, and researched at local, organizational, and global levels?

Environmental justice and critical environmental education synergy is also integral to introducing terms like “environmental slavery” and “environmental servitude” as interchangeable conceptualizations that capture the experience of disadvantaged and vulnerable, but resilient communities who are differentially exposed to unhealthy environmental conditions and resource-poor settings such that:

Vulnerable communities are used (directly or indirectly) to host social and environmental disamenities and externalities through planning, zoning, industrial siting, infrastructure and development inequities; while communities consisting of dominant racial and class populations benefit from the inequities, access to more amenities, and the ecological goods and services of host communities (Wilson, 2009, p. 16).

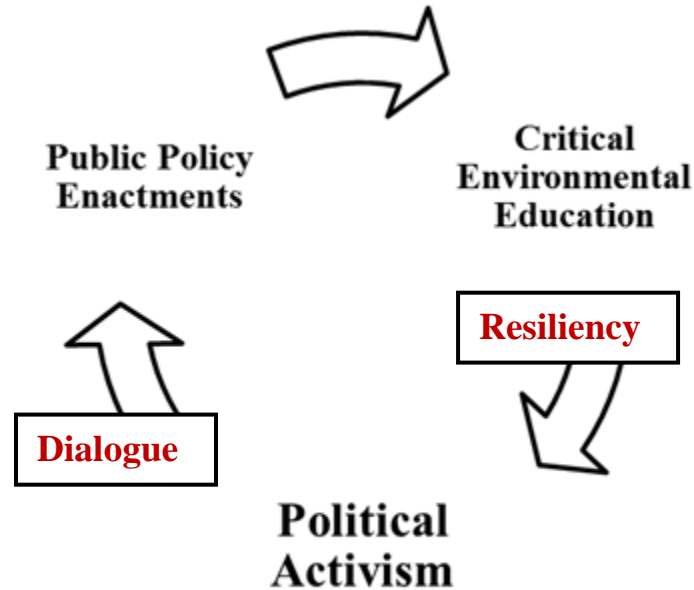
Thus, as a term, environmental slavery/servitude can be used to frame emerging environmental justice issues that differentially burden people of color, the economically disadvantaged, elderly populations, rural communities, indigenous groups, women, and immigrants in the US such as climate change, natural disasters for my purposes, access to health resources including supermarkets, community gardens, parks and playgrounds, pedestrian infrastructure, basic amenities, and medical facilities; and the overabundance of health-restricting facilities including liquor stores, fast food restaurants, and convenience stores. The term can also be readily applied to describe the state of environmental injustice that burdens groups in the Global South and marginalized racial/ethnic populations in Canada, Europe, and Asia.

Applied here, the language of environmental justice, as a framing tool, broadens public awareness about the inherent links between social justice and sustainability in the realm of recovery from environmental disasters. As was discussed in Chapter 3, disaster vulnerability as largely rooted in disparate patterns of community settlement, political empowerment, civic engagement and access to economic capital, social networks, and information is a environmental justice, social justice, and sustainability issue. It has been shown that social disruption and inequities caused by disasters can galvanize communities to mobilize politically in the regulatory and policy arenas (Bolin and Stanford, 1991) or to enhance movement-building and civic engagement through a collective sense of ethnic identity (Davis, 1986). This is certainly the case in post-Katrina New Orleans and in Vieques, Puerto Rico post-US Naval occupation. The ravages of Hurricane Katrina in 2005 starkly revealed to policymakers, the media, and the public how extreme weather events have their most devastating impacts on communities of color and the poor. Lacking adequate infrastructure, transportation access, and health care, these communities face disproportionate exposures to natural and anthropogenic environmental hazards. These are issues best addressed by an environmental justice framework. An environmental justice framework considers two major issues for socially equitable disaster planning and recovery: first, the cumulative impact of myriad environment assaults and both pre-existing and pursuant community vulnerability (Morello-Frosch and Lopez, 2006); second, sources of community resilience in the face of disasters. An environmental justice framework also offers a

useful way to understand pre-disaster vulnerabilities and post-disaster recovery capacity (Bolin, 2006).

Resiliency is another component of environmental justice framing. To recap, resilience thinking is important for the discussion of vulnerability for three reasons: (1) it helps evaluate hazards holistically in coupled human-environment systems, (2) it puts the emphasis on the ability of a system to deal with a hazard, absorbing the disturbances or adapting to it, and (3) it is forward-look and helps explore policy options for dealing with uncertainty and future change (Berkes, 2007). Further, resilience thinking challenges the widely held notions about stability and resistance to change implicit in risk and hazard management policies around the world that can infiltrate environmental education pedagogical and curriculum frameworks (Adger et al. 2005). Folke et al. (2003) identified four critical factors, or clusters of factors, that interact across temporal and spatial scales that seem to be important in building resilience in social-ecological systems: learning to live with change and uncertainty, nurturing diversity in its various forms, combining different types of knowledge for learning, and creating opportunity for self-organization. Vieques, the Asian tsunami, Katrina, and Haiti all represent social-ecological systems. Thus, environmental justice approaches to vulnerability encountered in disasters, hazards, or crises such as these that is sustained by resilience thinking has the pedagogical potential to engender institutional learning. Consequently, I have created the following public policy cycle highlighted in Figure 27 and suggest its inclusion in bridging critical environmental education and public policy enactments.

Figure 27 Educational and Public Policy Cycle Resulting from Critical Environmental Education



Folke et al. (2005, p. 447, 453) further points out that institutional learning can be stored in the memory of individuals and communities. In many indigenous societies, the elders of the community are the holders of social memory; in the industrial society, it is not clear who (if anyone) carries social memory, although much of this function may reside in various media (books, films) or storage (libraries and archives). The creation of platforms for dialogue and innovation, following a crisis, is essential to the stimulation of learning to deal with uncertainties. It helps reorganize conceptual models and paradigms, based on a revised understanding of the conditions generating the crisis. In many cases, institutions emerge as a response to crisis and are reshaped by crisis. Given the resonance of the disasters or crises discussed here and the residue stored in the cultural memory of the individuals and communities impacted, it makes sense that in order to most strategically prepare individuals and communities for future disasters and to

mitigate against undesirable outcomes such as those experienced by survivors, it makes sense for institutions to offer a deliberate pedagogical and curriculum framework. I believe the more liberatory pedagogical and curriculum framework is CEE.

Envisioning Critical Environmental Education: The Role and Responsibility of the Critical Environmental Educator

It follows, then, that critical environmental educators “play a critical direct role in political socialization by creating opportunities for the open discussion of public issues in the classroom” (Chawla & Cushing, 2007, p. 442). Undoubtedly, critical environmental educators navigate difficult terrain in secondary schools (Chapman, 1999; Walker, 1997). There is much evidence to suggest that environmental education is neglected by secondary school administrators (Eames, Cowie, & Bolstad, 2008; Grodzinska-Jurczak, 2004; Lang, 2003; Bell, 2000; Clark, 1997; Robottom & Hart, 1993; Robottom, 1990; Huckle, 1986). Further, environmental education competes in an increasingly overcrowded curriculum and has yet to be taught from a transdisciplinary perspective (Eames et al., 2008; Kim & Fortner, 2006; Gough, 2003; Lee & Williams, 2001; Hart, 1998; Clark, 1997; Weigand, 1996; Walsh, 1984). Critical environmental educators are often labeled biased activists or conceptualized as fatalists by their peers (Rennie, 2008; Smith, 2007; Sherren, 2005; Jickling, 2003; Disinger, 2001; Buchan, 2000; Knapp, 2000; Huckle, 1999; Jickling & Spork, 1998). Instead, critical environmental educators should be edified as critical pedagogues who “encourage educational practitioners to consider how traditional curricula and pedagogies serve to sustain race, gender, and class hierarchies” (Pacheco & Velez, 2009, p. 277). This requires a commitment of embracing

one's inner womanist spirit. Nonetheless, it is in this contested terrain that the conceptual and pedagogical understandings of CEE can materialize and human agency, including the role of individuals, leaders and institutions can emerge and influence constructive outcomes. Through the research carried out to date, there is little doubt about the potential of school-based programs playing a key role in promoting community resilience to hazards. Based on this pedagogical potential, the question that arises is how to best harness this potential in the best interests of school, youth, families, and the wider community. "Through education efforts, an ethos of hazards sustainability can be embedded within youth, within families, and within schools and communities as reflected in Table 9 (Ronan & Johnston, 2005, p. 59).

Table 9. Education Across 4R's (Reading, Response, Recovery, Resilience): The Move Toward Integration

I. Standalone Programs
A. The role for risk and protective factors
B. Use of evidence from literature or Readiness, Response and Recovery
C. Use of evidence from related literature (psychology, education, others)
D. The role for theory
II. A Move Toward Integration
A. Integrating material within the wider curricula
B. Increased links with family and home
C. Links with the community
D. Putting it together; a central role for schools in community efforts

Given this analysis, an essential component of the environmental justice and critical environmental education nexus is "that cultural knowledge and language carry forward root metaphors that encode and reproduce cultural ways of knowing and human

relationships with the Earth's natural systems" (Mueller, 2009, p. 234). It is the responsibility of the critical environmental educator to ensure that the curriculum prioritizes learning opportunities that optimize this nexus. Educating students in "the art of living well where they are" (Orr, 2005, p. 92) is a political act. Stepp et al. (1969) stated that environmental education is an attempt to direct student behaviors and citizen identities. Therefore, "environmental educators must be honest and critical about the biases, values, and cultural ideas that guide and are reproduced through their teaching and curriculum" (Gahl Cole, 2007, p. 36). This honesty and criticality incites environmental education for collective political engagement along (critical environmental education) with the conditions that foster people's interest and engagement in public issues, their understanding and appreciation of democratic values and principles, and their knowledge of political processes (civic action). Not least of all, root metaphors of environmental education that counter an eco-justice oriented pedagogy that seeks to inform students about the biopolitics of disposability are dismantled.

Envisioning Critical Environmental Education in Theory and Practice

Despite the problematic and contested history of issue-based environmental education (EE), a framework, rooted in critical pedagogy and anchored in qualitative research-based educational methodologies that fosters the environmental literacy and citizen science participation of students and community members is the foundation of critical environmental education (CEE) (Short, 2010). The routedness of CEE in critical pedagogy is significant since critical pedagogy "looks at the social, political, and cultural context in which classroom learning operates, making an important connection between

the teaching and learning that happen in the classroom and the dynamics of power and socialization that operate on a societal level” (Pacheco and Velez, 2009, p. 277). As discussed in Chapter 1, such an EE framework promotes proenvironmental behavior. At the heart of promoting proenvironmental behavior is unmasking how “multiple and interactive systems at the individual, group, community, and policy levels support or oppose structures of social inequality and dependence” (Cintrón-Mocoso, 2010, p. 34). It also embodies the educational philosophy of John Dewey (1916) who argued that democratic education serves a vital social function essential to the continuity of societies and life itself. In theory and practice, CEE is rhizomatic (Stivale, 2011, p. 118-119) and as envisioned is rooted in five pedagogical and curricular frameworks: (1) WISE (Wellbeing of Individuals, Societies, and Environments) and social justice (Barton & Osborne, 2002; Roth & Désautels, 2002; Tobin, Elmesky, Seiler, Kincheloe & Steinberg, 2005), (2) Civic Ecology or Ultimate Civics, (3) Democratic or Citizenship Education, (4) Education for Sustainable Development, and (5) place based education (PBE). A parallel articulation of CEE is humane education which values teaching about the interconnectedness of human rights, environmental preservation, and animal protection in order to equip students and community members with an understanding of global challenges and the skills to solve them (Weil, 2012). Indeed, the disasters/crises discussed here represent global challenges. Accordingly, Weil (2012) suggests:

What if, instead of debate teams, we created solutionary teams in which groups of students worked together to come up with the most imaginative, yet practical and cost-effective solutions to complex challenges? These students could address issues in their own schools (e.g., cafeteria food or energy use); in their

communities, or in the world, and in so doing begin to develop creative ideas for actually solving problems (p. 34).

Framed this way, critical environmental education insists that schools embrace a moral imperative to create the conditions for students to develop “action competence” which is defined as “the capability – based on critical thinking and incomplete knowledge – to involve yourself as a person with other persons in responsible actions and counter-actions for a more humane world” (Lungard & Wickman, 2007, p. 2).

Given the deconstruction of the disasters discussed here along with the ways in which they marginalized local communities, the media discourse provides many teachable moments that seamlessly integrate into an environmental education course. Further, in such a course, “students are uniquely positioned to deconstruct the marginalizing categories through the learning process” (Mahraj, 2011, p. 4) and to engage in problematic inquiry as demanded by the goals and principles of critical environmental education. The complex problem-solving and critical thinking involved in such inquiry demand of student considerable tolerance for ambiguity and uncertainty, autonomy for making judgments, and the confidence and insight to challenge conventional wisdom (Newmann, 1987). “Therefore, if students are capable of acting on their choices and influencing environmental decision making, then environmental education must incorporate the development of students’ knowledge of the political-legal process and skills in political advocacy” (Stevenson, 2007, p. 144). “So, while Katrina’s emergence was ultimately a natural event, her rapid acceleration to megastorm status bore distinctly human fingerprints. Like our relentless burning of coal and oil that is

contributing to planetary climate change, Katrina is a harbinger of more radical accelerated climate change” (Gelbspan, 2007, p.16).

By framing Vieques, the tsunami, Katrina, and Haiti this way or as (un)natural disasters, they are able to be pedagogically and curricularly positioned as environmental tipping points by which to teach critical CEE. “Environmental tipping point” is meant to convey that part of the human-environment system that is capable of leveraging far-reaching change in the system such that a change at a tipping point sets in motion mutually reinforcing feedback loops that propel the system on a completely new course. An environmental tipping point perspective can help to cope with the complexity of environmental problems by providing a lens for: (1) comprehending why some environmental problems are so difficult to solve, (2) understanding environmental success stories in a way that points to concrete measures for strengthening ecological security and sustainability, (3) creating a more functional and productive public dialogue for ecological security and sustainability (Marten, 2005). This is a solutionary perspective that moves beyond the environment/society disconnect of traditionally taught EE.

Classroom or community dialogue can actualize this practice by capitalizing on what Rodriguez (2011) refers to as a WISE pedagogical framework that ensures students and community members move beyond the scope of doing and learning science to acquire a critical and social consciousness to engage the current social and material relations that are devastating the environment. This type of training for engagement in sociopolitical action or “acquiring the capacity and commitment to take appropriate,

responsible and effective action on matters of social, economic, environmental, and moral-ethical concern” (Bencze & Alsop, 2009, p. 76) is antithetical to the current neoliberal ideology of schooling that has infiltrated environmental science education that focuses on a profit motive or “training each student to compete for limited resources (e.g., knowledge, skills, etc. and marks; training that would, supposedly, enable them to compete successfully in a global economy and a rapidly changing world” (Bencze & Alsop, 2009, p. 77). Instead, this approach to learning emphasizes training students, irrespective of their social and cultural capital, to collaborate in group learning or to establish communities of practice (CoPs) (Wenger, 2000).

Wenger et al. (2002, p. 4) defines CoPs as, “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis”. According to Wenger (1998), a CoP defines itself along three dimensions: what it is about – its joint enterprise as understood and continually renegotiated by its members; how it functions – mutual engagement that bind members together into a social entity; what capability it has produced 0 the shared repertoire of communal resources that members have developed over time (see also Wenger, 1998, pp. 73-84). Beyond the three dimensions of CoP, three structural elements of CoP were also described by Wenger et al. (2002) – (1) domain, (2) community, and (3) practice. It is these three structural elements of CoP that lend itself to the existence of CoP in online social networking environments. “Social networking technologies offer ways to participate in interactive dialogue and the means to conduct learning” (Gunawardena et al., 2009, p. 8). Using Web 2.0 tools,

Gunawardena et al. (2009, pp. 11-13) have framed a learning environment consisting of five phases in the learning process of a CoP: context, discourse, action, reflection, and reorganization that leads to a sixth phase, socially mediated metacognition which can progress in multiple iterations as more users join and contribute to the wiki resulting in an evolving process of collective intelligence gathering. Through face-to-face or even online engagement in CoP, participants develop and share discourse practices, tools, rules, beliefs, identities, etc. Thus, a WISE pedagogical framework disrupts the current neoliberal or consumerist orientation of environmental science education that caters to what Gunawardena et al. (2009, p. 5) describe as learning 1.0 as opposed to learning 2.0. The evolution of learning from web 1.0 to 2.0 is reflected in Table 10.

Table 10. Evolution of Learning from Web 1.0 to 2.0 Environment

Learning 1.0	Learning 2.0
<ul style="list-style-type: none"> • Formal and structured learning • Instructor led, Web-based, virtual and blended • Command and control; top-down, push • Centralized content creation • Management hierarchy • Taxonomies • Scheduled, planned • Company-identified experts • Managed formal events 	<ul style="list-style-type: none"> • Informal and collaborative learning • Blended, blogs, wikis, Q&A, search • Bottom-up; peer to peer, pull • Grassroots content creation • Mentoring, knowledge networks • Tags • Real-time, just in time • Community identified experts • Enabled knowledge exchange

Note: Adapted from Wheeler & Lambert-Heggs (2008)

Moreover, CEE, as described above, contrasts with the traditional and neoliberal purpose of schooling that seeks to preserve the existing status quo by reproducing the norms and values that currently dominate environmental decision making. Therein lays the rupture between CEE and schooling. “Schooling” promotes a return to normalcy that

forecloses the potential for transformative learning. Therefore, the pedagogical potential of disasters or crises to foster learning lies in its ability to provoke “learning insofar as it creates a gap between the old and the new” (Houwer, 2011, p. 110). In addition to cultivating resilience thinking, learning through disasters or crises cultivates border thinking as was discussed in Chapter 3. Certainly in states like New Orleans, where Hurricane Katrina, was used as a neoliberal tool to privatize public education and promote a voucher system, critical environmental education is a ripple of resistance to push back against a voucher program, the most sweeping in the country, that seeks to spend tens of millions of dollars inculcating a public school system, that was not wholly broken, with a Bible-based curriculum (Pan, 2012).

In resembling a Civic Ecology Program, CEE prioritizes and teaches for resiliency and socioecoystems frameworks inclusive of biological and cultural diversity, adaptive or social learning, social capital, innovation, and self-organization (Short, 2010, p. 12) or what marine toxicologist Riki Ott calls Ultimate Civics. Ultimate Civics presents learning opportunities for students from elementary school to graduate of professional school; it is interactive and transdisciplinary. As envisioned by Ott it rebrands old-fashioned civics to engage systemic problem-solving necessary to protect communities, environments, and local economies from unprecedented threats like global climate change, educates about accurate climate science, and educates about ways to work within a fractured and polarized political system in order to achieve desirable outcomes (Ott, 2010). A teacher who is aware of systemic hegemonies, of marginality and knowledge production biases, could engage her students in ways that empower them

and also work to promote equity, both in her classroom and in society as a whole (Dei & Calliste, 2000). Such a curriculum capitalizes on the rupture to teach against disaster capitalism, the rapid-fire corporate reengineering of societies still reeling from shock and about “the shock doctrine” or using the public’s disorientation following massive collective shocks – wars, terrorist attacks, or natural disasters -- to achieve control by imposing economic shock therapy. When local or global crises such as the 2004 Indian Ocean tsunami or Hurricane Katrina are ignored in schools and not reflected upon in favor of returning to normal, a learning opportunity to create new frames of recognition is missed. Disasters or “crisis provokes a deconstruction by providing access to non-normative perspectives that call into question the frame, the integrative hermeneutic that makes our lives intelligible; [disasters] or crises provoke instability and uncertainty” (Houwer, 2011, p. 111).

On a fundamental level this curriculum prioritizes a pedagogy of sustainability and democratic or citizenship education with emphasis on not dismissing the perspectives, concerns, priorities, and issues of marginalized voices as irrelevant and deficient while simultaneously privileging these voices and the indigenous ways of knowing they possess. These approaches are thus not an ending point, but rather a starting point – the goal of which is to identify students’ existing knowledge and help them build on it to acquire the skills to mobilize their cultural capital (Yosso, 2005) to succeed in the face of disasters or crises amid a neoliberal cultural assault on public education in general, of which environmental education is a part. Democratic or citizenship education as a component of CEE is “science curriculum oriented toward

sociopolitical action” (Hodson, 2003, p. 645) that strategically equips individuals with the tools to make informed decisions toward a sustainable future (Hodson, 1998). From this perspective, citizenship education opens up a space for environmental education to be (re)envisioned “from the standpoint of critical pedagogy, which stresses the need for political engagement” (Johnson & Morris, 2010, p. 78). This cycle of political or public policy engagement is highlighted in Figure 2.

Still, “while inherently pedagogical, crises are only transformative when subjects access their agency, when they retain the capacity to act. Political freedom depends on the ability to act. Freedom is made in the company of others” (Houwer, 2011, p. 112).

By making time to explicate attachments and support the integration of private and public crises, education can help us develop the capacity to live from and through crisis. In order to do so, educations will need to resist the tendency to encourage students to “return to normal.” Rather, they must cultivate rationality, cooperative action (coalitional competence), and diverse ways of knowing. Crisis shines the light on the hope that educations might yet offer (Houwer, 2011, p. 115).

The arguments presented here are in favor of an emergent curriculum that evolves from the pedagogical potential of disasters or crises as learning opportunities for democratic action and learning-in-action. I am interested in encouraging teachers, learners, and citizens to explore critical environmental education in response to their ‘situationality’ as Freire (1970) writes of the need for people to reflect on their own ‘situationality’ to the extent that they are challenged to act. I am interested in encouraging teachers, learners, and citizens to explore CEE in response to global contexts and commitments since Dewey (1938) emphasizes the need to engage in progressive practices that aim to

integrate schools and communities into patterns of civic engagement essential to democratic participation. This is the essence of citizenship education. Regarding the importance of action in citizenship education, Holden and Clough (1998) express that

education for participation involves reflecting on values, assisting children to acquire the skills necessary for taking action and ultimately providing opportunities for them to become involved as active citizens (p. 14)

Notwithstanding the omissions of environmental education with respect to education for sustainable development, Scott (2010) offers seven constructive guideposts that can potentially inform the critical environmental science classroom with a focus on education for sustainable development such that people: (1) come to learning contexts with experience, knowledge, understanding and concerns, (2) don't learn what teachers teach, (3) are rarely eager to absorb other people's preoccupations and prejudices, (4) never respond well to pessimism and tales of looming disaster and dread, (5) are not there to cure their parents' bad habits, (6) rarely judge lessons – and school – in terms of how interesting or relevant the content is, and (7) aren't fully able to develop social and citizenry skills until they can practice these for real. Certainly, the media along with the social networks and families of young people generates learning contexts. What we learn, what it means to us, and what sense we make of it, depends on what we bring to the table in relation to knowledge, interests, concerns, questions, values, etc. What we learn either reinforces or changes what we know, feel, think, and value, and the skills we have. This means starting from local, neighborhood issues, which young people often know

more about than teachers do, is fundamental to developing environmental citizenry skills (Scott, 2010).

Arising out of a concern that traditional environmental education, as it has been described here, is overly concerned with natural surroundings without consideration for the unjust conditions, place based education (PBE) is centered around the twin aims of reinhabitation and decolonization, the former being the concern with “identifying, latter affirming, conserving and creating those forms of cultural knowledge that nurture and protect people”; while the latter involves “unlearning much of what dominant culture and schooling teaches, and learning more socially just and ecologically sustainable ways of being in the world” (Gruenewald, 2008, 318). In practice, Gruenewald suggests five areas where PBE could be effectively deployed include: (a) local cultural studies; (b) local nature studies; (c) community issue-investigation and problem-solving; (d) local internships and entrepreneurial opportunities; and (e) induction into community decision making.

Figure 28 Components of a Sense of Place



Kincheloe et al. 2006 (p. 143) propose that place attachment and place meaning (Figure 28) is a ‘living ecological relationship between a person and a place’ including ‘physical,

biological, social, cultural' and other factors. Further, as has been discussed in Chapter 1, place attachment and place meaning fosters pro-environmental behavior, and related emotions, attitudes, and behavioral intentions, which is a goal of critical environmental education. Orr (1992, 1994) contends that people will act responsibly towards their immediate environment if they have a sense of rootedness. Similarly, drawing from ecojustice philosophy, scholars like Chet Bowers (2001; 2002; 2006) suggest that affective ties to places may motivate people to be better informed about local environmental issues and make decisions beneficial to their communities. Thus, embedded in pedagogical and curricular framework, defined here as CEE, is the concept of critical consciousness (Hinchey, 2004). CEE for critical consciousness insists that in addition to ensuring learners value and learn from their rootedness, it also demands that classrooms, with all their limitations, provide learners with the routedness to arrive at their particular destination with the appropriate knowledge, strategies, skill sets, and tools. Any other route (root) is a missed opportunity to learn from the pedagogical potential of disasters or crises.

Conclusion

In conclusion, this dissertation has offered a critique of institutional and environmental constraints impacting disaster mitigation, preparation, and response with the goal of demonstrating how they have transformed society in lasting and consequential ways. A key point raised considers if the disaster response experience can serve as “a foundation for a stronger civil society, more solidarity, and grassroots power” (Solnit, 2010, p. 45)? In order to maneuver in pre- and post-disaster environments with an ethic

of civility, solidarity, and grassroots power requires decision makers to embrace a womanist epistemology that centralizes an ethic of caring and personal accountability in making decisions about the disaster response experience. Such realignment means relying less upon the knowledge and expertise of entities like FEMA and the federal government and more upon resiliency theory and the insights of NGOs like MIR, J/PHRO, and UTPMP. Given the frequency and intensity with which disasters occur, society must grapple with this and individuals and communities must be equipped with the appropriate knowledge, tools, and skills. Multiple avenues exist, as has been shown, towards acquiring the appropriate knowledge base, tools and skill set. One avenue is through participation in communities of practice, community networks, and most notably through formal and informal K-12 critical environmental education experiences that prioritize an environmental justice pedagogical and curriculum orientation. Ultimately, society's "survival will be grounded in understanding our own capacity for power and resilience, creativity, and solidarity" (Solnit, 2010, p. 45). Solnit's recommendation to use power and resilience, creativity, and solidarity in equipping individuals and communities with the knowledge, tools, and skills to survive disasters, like the ones considered here, is best realized through exposure to an environmental education curriculum that is non-linear, non-neoliberal, and non-imperialist since "the result of the implementation of an imperialist curriculum is a society that is virtually hypnotized, silenced, and unable to participate democratically in the political sphere" (Diaz Soto, 2006, p. 115). As I've articulated, this curriculum is critical environmental education.

Thus, disasters like Katrina, the Asian tsunami disaster, the earthquake disaster in Haiti, and the disastrous consequences of U.S. naval occupation and resource colonization of Vieques, Puerto Rico reveal it is impossible to fully explain past events with a tidy and sanitized response since the meanings of these events exceeds the possible causes that may be assigned to them. Simultaneously, these examples raise questions about matterability, answerability, and responsibility. In particular, “Katrina has illustrated our interconnectedness [*Ubuntu*], and it makes our personal accountability as members of a conscious society ever more difficult to deny” (Jordan, 2007, p. 133) while simultaneously reminding us that we are all now from New Orleans given the unpredictability and tenuousness with which disasters occur and the institutional constraints in place to address them. “Reckoning with consequences” or our personal accountability is an inadequate means of coming to terms with a catastrophe (Arendt, 1958, p. 300), but it is a starting place nonetheless. Reckoning, if it comes at all, will come from “dissolving the known into the unknown” making the event *strange* enough, through reflection, to see it with new eyes (Arendt, 1953, p. 382).

Following Arendt, in order to come to terms with these disasters, for a moment, from reason to understanding, this dissertation has utilized critical discourse analysis and semiotic analysis along with the theoretical framing of critical pedagogy, womanism, and critical race theory to make the Asian tsunami, Katrina, Vieques, and Haiti story at least temporarily strange. Though the centralizing discourse in exposing these disasters as (un)natural and illuminating their impact on human lives imbued with complex race and class histories was through a discussion of race-economics, discourses of colonialism,

landscape, displacement, housing, the levee, and media figure prominently in my analysis. Semiotic analysis was employed to focus on selected images, as represented in figures 5, 17, 18, and 20, for the purpose of expanding upon the discourse of racio-economics.

This effort reflects my contribution to an emerging curricular foundation that will shape how society responds to, represents, and remembers (Eyre, 2007) these and all disasters. Finally, I've offered pragmatic routes for teachers, learners, and ordinary citizens to explore critical environmental education in response to personal contexts and commitments as described by Arendt (1968).

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ENDNOTES

¹ In *Stormy Weather: Katrina and the Politics of Disposability*, Henry Giroux (2006) draws from Foucault, Hardt, Negri, and Agamben to define biopolitics, also referred to as biopower. “Both Foucault and Hardt and Negri understand biopolitics largely through its productive capacity. For Foucault, biopower no longer resembles the classical sovereign notion of control exercised mainly as a means of deduction – the seizing of things, time, bodies, and ultimately the seizing of life itself. . . . For Hardt and Negri, the biopolitical signals a form of power that regulates social life from its interior, mediated through the world of ideas, knowledge, new modes of communication, and a proliferating multitude of diverse social relations. Biopolitics now touches all aspects of social life and is the primary political and pedagogical force through which the creation and reproduction of new subjectivities take place. According to Hardt and Negri, Who we are, how we view the world, how we interact with each other are all created through this social biopolitical production. While biopolitics in Foucault and Hardt and Negri addresses the relations between politics and death, biopolitics in their views is less concerned with the primacy of death than with the production of life both as an individual and a social category. For Giorgio Agamben, such a relationship is not only rejected as historically inaccurate but also is absolutely untrue in the current historical conjuncture. Biopower in Agamben’s formulation is the administration of what he calls “bare life,” its ultimate incarnation is the Holocaust with its ominous specter of the concentration camp” (pp. 16-17). “Biopolitics in its currently brutalizing neoliberal form inscribes into its power relations the logic of redundancy and disposability in order to eliminate all vestiges of the social contract, the welfare state, and any other public sphere not governed by the logic of profit or amenable to the imperatives of consumerism” (p. 28). Biopolitics “sends a message to those populations who are poor and black—society neither wants, cares about, nor needs you. Katrina revealed with startling and disturbing clarity who these individuals are: African-Americans who occupy the poorest sections of New Orleans, those with economic inequality, which designate and constitute a production line of human waste or wasted humans. Cut out of any long-term goals and decent vision of the future, these are the populations, as Zygmunt Bauman points out, who have been rendered redundant and disposable in the age of neoliberal global capitalism” (p. 29).

² In *Stormy Weather: Katrina and the Politics of Disposability*, Henry Giroux (2006) draws from Foucault, Hardt, Negri, and Agamben to define biopolitics, also referred to as biopower. “Both Foucault and Hardt and Negri understand biopolitics largely through its productive capacity. For Foucault, biopower no longer resembles the classical sovereign notion of control exercised mainly as a means of deduction – the seizing of things, time, bodies, and ultimately the seizing of life itself. . . . For Hardt and Negri, the biopolitical signals a form of power that regulates social life from its interior, mediated through the world of ideas, knowledge, new modes of communication, and a proliferating multitude of diverse social relations. Biopolitics now touches all aspects of social life and is the primary political and pedagogical force through which the creation and reproduction of new subjectivities take place. According to Hardt and Negri, Who we are, how we view the world, how we interact with each other are all created through this social biopolitical production. While biopolitics in Foucault and Hardt and Negri addresses the relations between politics and death, biopolitics in their views is less concerned with the primacy of death than with the production of life both as an individual and a social category. For Giorgio Agamben, such a relationship is not only rejected as historically inaccurate but also is absolutely untrue in the current historical conjuncture. Biopower in Agamben’s formulation is the administration of what he calls “bare life,” its ultimate incarnation is the Holocaust with its ominous specter of the concentration camp” (pp. 16-17). “Biopolitics in its currently brutalizing neoliberal form inscribes into its power relations the logic of redundancy and disposability in order to eliminate all vestiges of the social contract, the welfare state, and any other public sphere not governed by the logic of profit or amenable to the imperatives of consumerism” (p. 28). Biopolitics “sends a message to those populations who are poor and black—society neither wants,

cares about, nor needs you. Katrina revealed with startling and disturbing clarity who these individuals are: African-Americans who occupy the poorest sections of New Orleans, those with economic inequality, which designate and constitute a production line of human waste or wasted humans. Cut out of any long-term goals and decent vision of the future, these are the populations, as Zygmunt Bauman points out, who have been rendered redundant and disposable in the age of neoliberal global capitalism" (p. 29).

³ In *Black Woman "Educultural" Feminist*, Pauline Bullen defines an educultural feminist as an educator and cultural worker – an "educulturalist" – "one who is conditioned but conscious of the conditioning" thus "fit to fight for freedom as a process and not an endpoint" (Freire, 1998, p. 70). Though I value Bullen's self-definition, I choose to self-identify as a queer Black womanist, in addition to positioning myself as an educulturalist, because political agency (the ability to act on our world/environments) exists in these identifications. "Queer" includes those educators and activists who disrupt the notion of what is normal and natural (Hall, 2003) or heteronormative. "Queer – the adjective – means that there is no . . . single word, no simple slot into which complex personalities, behaviors, desires, abilities, and ambitions can be placed. In this way, we are all queer, if we will simply admit it (Hall, 2003, p. 13). In fact, queer, the noun, models a process that can be applied to arenas of theory, practice and research beyond those specifically involving sexual orientation or gender identity. As an umbrella term, 'queer' creates a space in which one can grapple with how to represent themselves to others." Applied to educultural work, queer cultural work encompasses modeling intellectual and emotional risk taking like sharing unpopular views, telling personal stories, and challenging the views of others (Rollins Gregory, 2004). It is in the telling of personal stories on behalf of *others* who cannot speak for themselves where I most comfortably situate myself as a critical researcher. In this regard, queer cultural work becomes queer curriculum work (Morris, 1998). Simultaneously, I position myself as a womanist, as opposed to feminist, since "womanism is a social change perspective rooted in Black women's and other women of color's everyday experiences and everyday methods of problem solving in everyday spaces, extended to the problem of ending all forms of oppression for all people, restoring the balance between people and the environment/nature, and spiritual dimensions. Unlike feminism, and despite its name, womanism does not emphasize or privilege gender or sexism; rather, it elevates all sites and forms of oppression . . . to a level of equal concern and action" (Phillips, 2006, p. xx-xxi). "Several difficulties accompany the use of the term 'black feminism.' One involves the problem of balancing the genuine concerns of black women against continual pressures to absorb and recast such interests within white feminist frameworks" (Collins, 1996, 13). Further, my queer Black educultural womanist agenda is grounded in the experiences and struggles of the feminist forefathers and foremothers in my family.

⁴ Cyborg as Donna Haraway has written in her 'Cyborg Manifesto' (1985), we live in a cyborg world of electronic communications, in which the difference between artificial and natural remains ambiguous: 'our machines . . . disturbingly lively and we ourselves frighteningly inert'. The term is thus indicative of transgressed boundaries, and an interrogation of the assumption of a unified subjectivity. The term 'cyborg' is a conflation of 'cybernetic organism', and was coined in 1960 by the research space scientist Manfred Clynes. However, cyborgs appeared in science fiction stories decades earlier. A 'cyborg' can be anything from a human with a prosthesis to a robot with a thin veneer of skin (as in the *Terminator* films), and according to Donna Haraway, we are all cyborgs to some degree. Thus she postulates a cyborg ontology which takes it premise the dissolution of traditional boundaries associated with the body.